Mobile Facial Recognition Appliance

User Manual

NEC (Hong Kong) Limited

Version 1.0

Date: 6/3/2014

Contents

1 Introduction 3
1.1 Overview 3
1.2 Compatibility 3
1.2.1 Support Environment 3
1.2.2 Camera 3
2 Specification 4
2.1 Hardware Specification 4
2.2 Dimensions 4
2.3 Interface Panel 5
2.3.1 Panel Interface Description 6
3 Built-in Function 7
3.1 Login 7
3.2 Multi-Languages Support 8
3.3 Main menu 9
3.3.1 Admin 9
3.3.2 Embedded FRS 10
3.4 System Administration 11
3.4.1 User Management 11
3.4.2 Log & Audit Trail 14
3.4.3 System Reboot 15
3.4.4 Firmware Upgrade 16
3.4.5 Date Time Settings 19
3.4.6 E-mail Notifications 20
3.4.7 Network Settings 22
3.4.8 Camera Setup 25
3.5 Integrated Real Time Monitoring System 26
3.5.1 Real Time Monitoring System Settings 26
3.5.2 Trigger External Device 27
3.5.3 Surveillance 30
3.5.4 Person Maintenance 32
3.5.5 Search Record Enquiry 41

3.6 Function NeoFrs 48
3.7 Face Capture FTP 49
3.8 Appliance Health Status 50
3.8.1 General 50
3.8.2 Health Status Event Summary 51
Appendix A - AXIS Camera Setup P1346 52
Appendix B - AXIS Camera Setup P1355 54
Appendix C – Panasonic Camera Setup WV-SP508E 56
Appendix D – Sony Camera Setup SNC-CH240 58
Appendix E – Hikvision Camera Setup DS-2CD854-EW 60
Appendix F – Samsung Camera Setup SNO-6011R 61
Appendix G – Bosch Camera Setup NBN-832V-IP 63

1 Introduction

1.1 Overview

NEC's Mobile Facial Recognition Appliance is a comprehensive solution which utilizes Neoface – NEC's world No.1 Facial recognition algorithm to deliver a powerful video surveillance platform as a new approach to physical security and traditional CCTV systems. With seamless integration to IP cameras and networks, this appliance instantly transforms passive/reactive CCTV surveillance systems into a smart pro-active surveillance solution capable of recognizing unwanted visitors and generates intrusion alerts even before security breaches can occur.

1.2 Compatibility

1.2.1 Support Environment

Operating System	Browser
Windows 7 or above	Chrome version 32.0 or above
Android 4.0.3 or above	Chrome version 18.0 or above
iOS version 6.1 or above	Safari version 6.0 or above

1.2.2 Camera

The Appliance supports standard H.264 or motion jpeg streaming IP camera. Here is the list of cameras which are being tested.

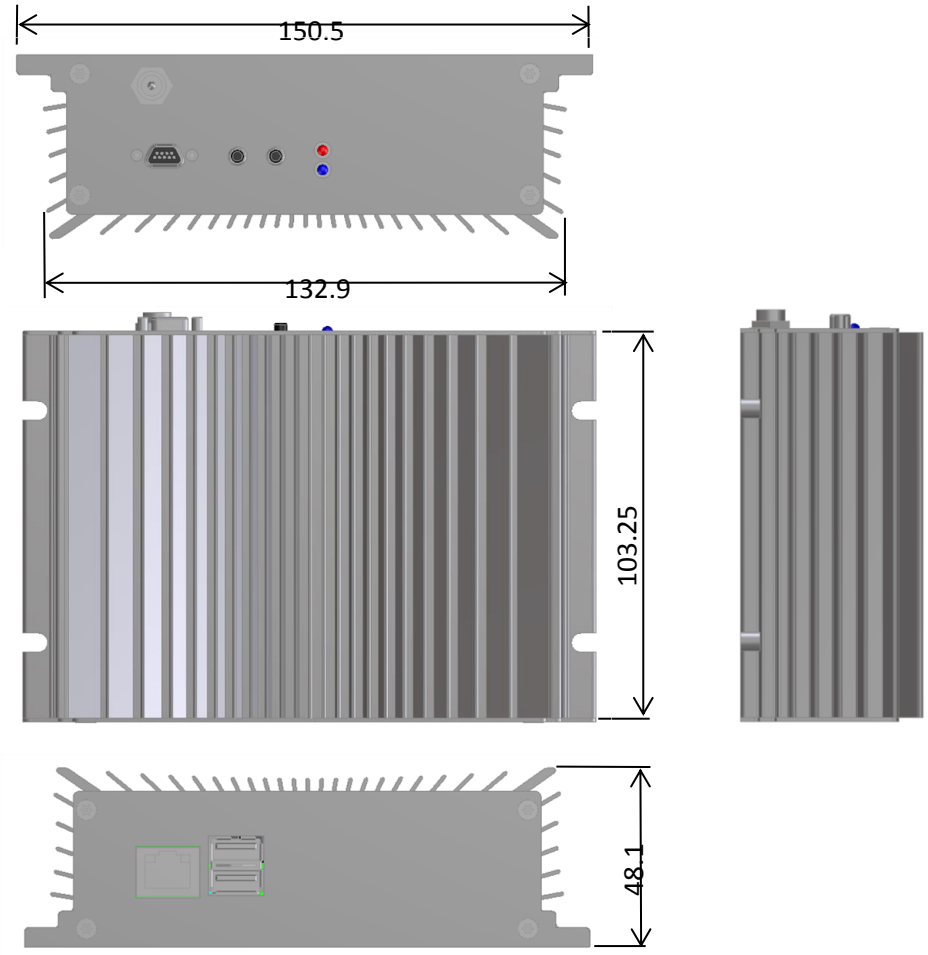
Brand Name	Model
AXIS	P1346 P1355
Panasonic	WV-SP508E
Sony	SNC-CH240
Hikvison	DS-2CD854F-EW
Samsung	SNO-6011R
Bosch	NBN-832V-IP

2 Specification

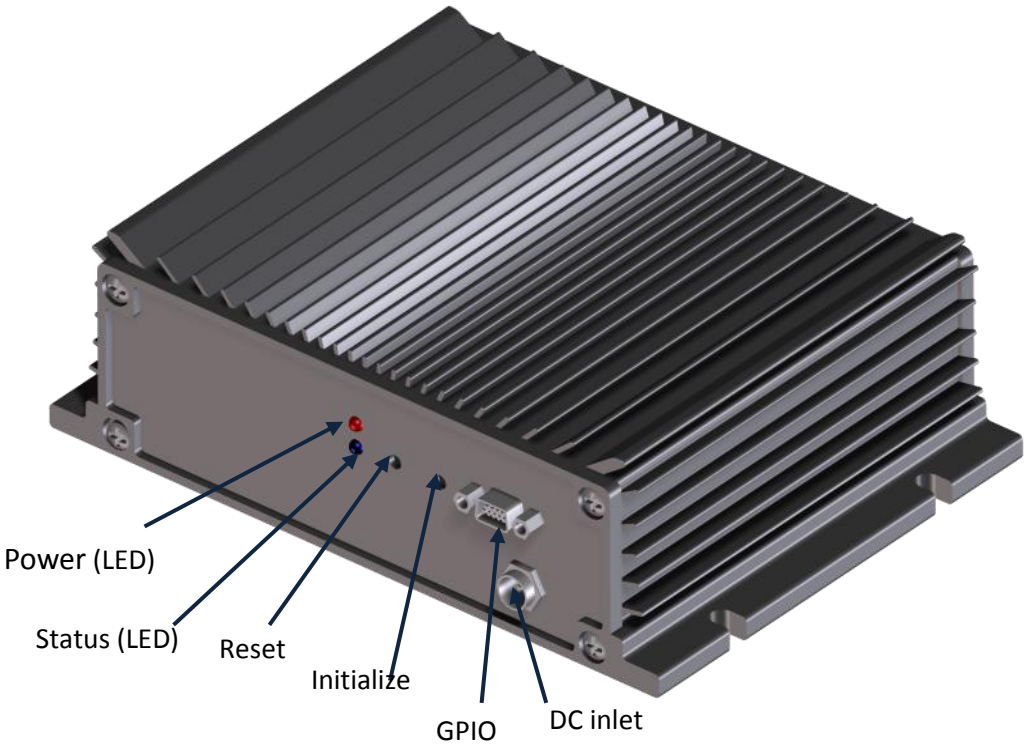
2.1 Hardware Specification

Conditions	-20 ℃ to 50 ℃
Sea Level	Under 2000m
Input	100-240V
Weight	500 g
3G/ WIFI	Support external USB WIFI device
Special Interface	PoE, GPIO

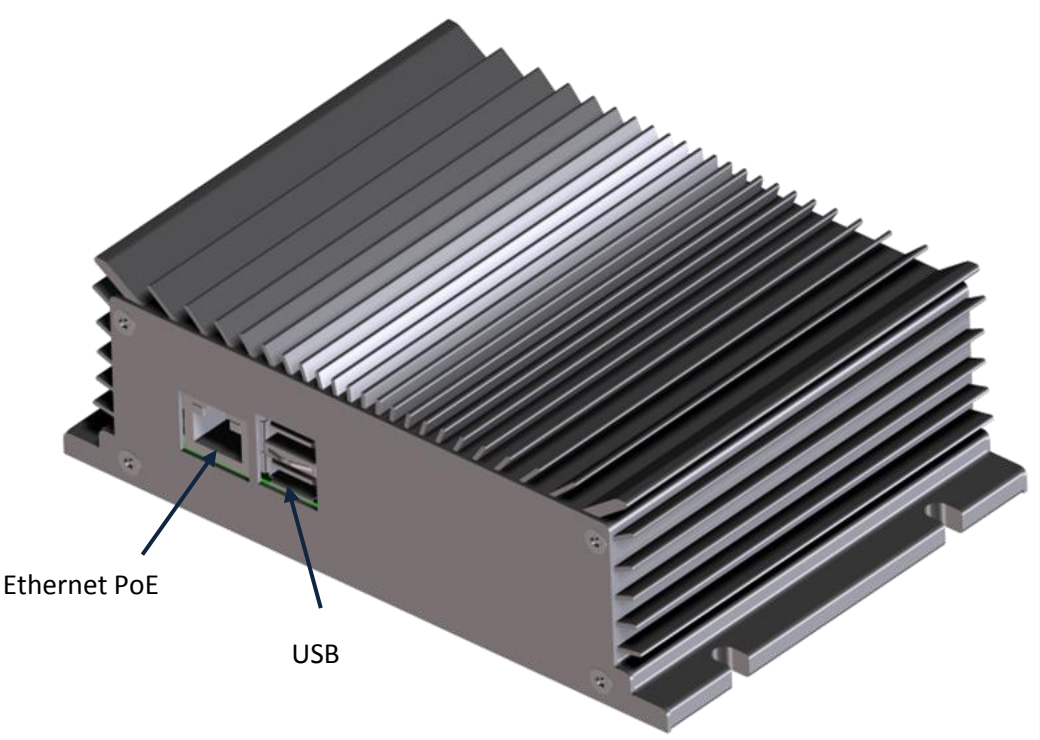
2.2 Dimensions



2.3 Interface Panel



Front Panel of Mobile Facial Recognition Appliance



Rear Panel of Mobile Facial Recognition Appliance

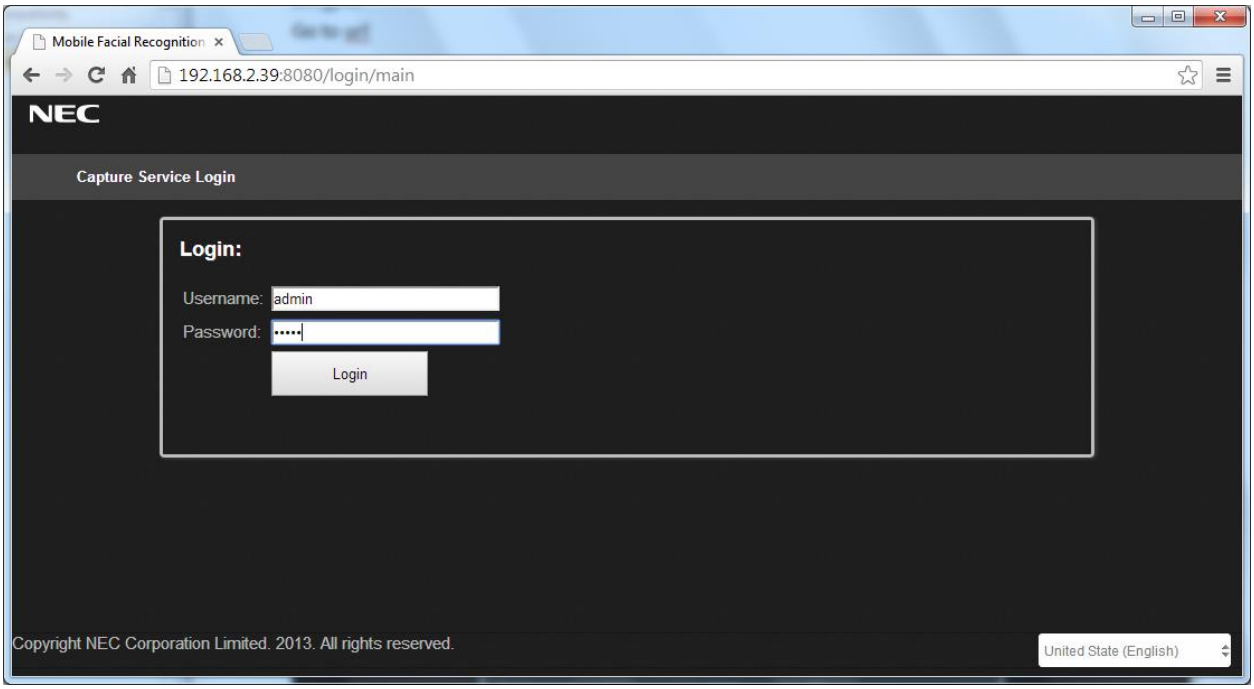
2.3.1 Panel Interface Description

Interface	Description
DC inlet	DC-in plug for 12V power adapter
Power (LED)	If power is supplied to the appliance it will be turned on
Status (LED)	Show the status of the appliance, if everything is normal, it will be turned off. For detail information, please refer to Appliance Health Status section
Reset	Reset button, press to restart the appliance
Initialize	Factory reset button, hold 10 second to trigger factory reset.
GPIO	General purpose I/O, which is used for controlling external device triggered by white/ black list hit in real time monitoring system
Ethernet	Ethernet plug which support PoE (Power over Ethernet)
USB	2 USB plugs support external WIFI/ 3G modem

3 Built-in Function

3.1 Login

The system can be accessed by URL: http://<<ip address>>:8080 with a supported browser. Please type in username and password and click “Login” button.



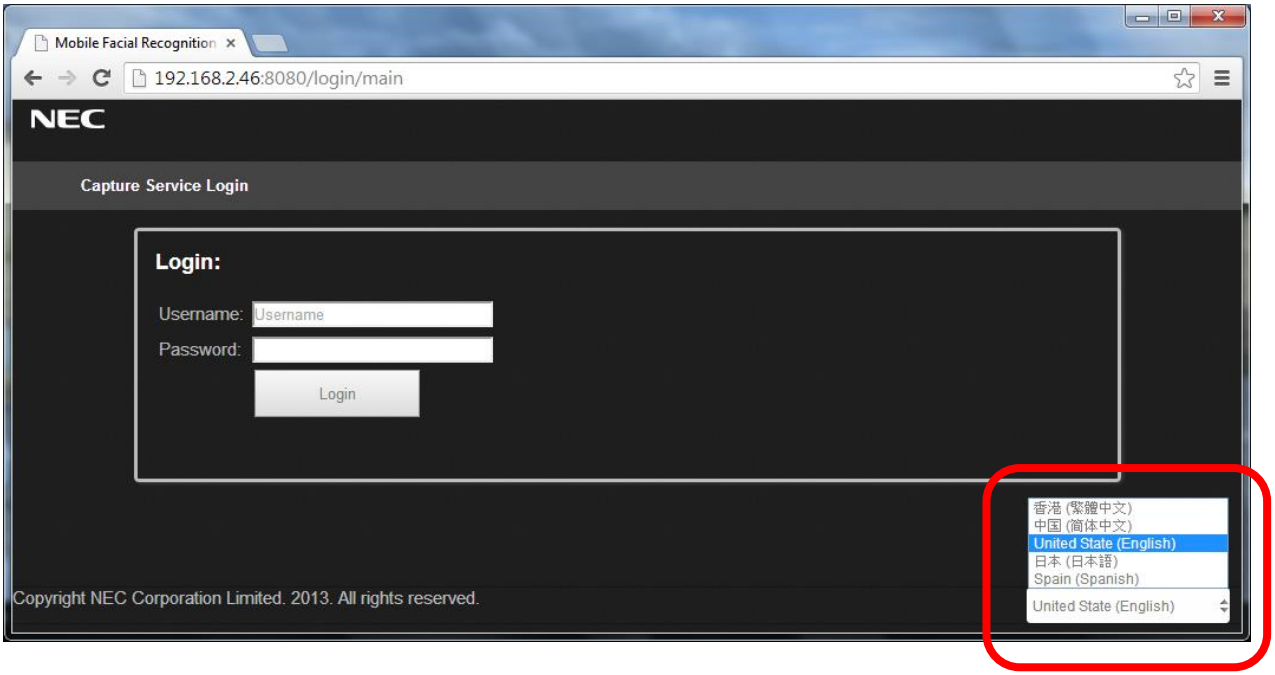
If user with “Admin” type is login, it will redirect to admin page, otherwise it will redirect to embedded FRS page directly.

3.2 Multi-Languages Support

The built-in web application supports five languages currently, the list of languages are as follow:

- English
- Traditional Chinese
- Simplified Chinese
- Japanese
- Spanish

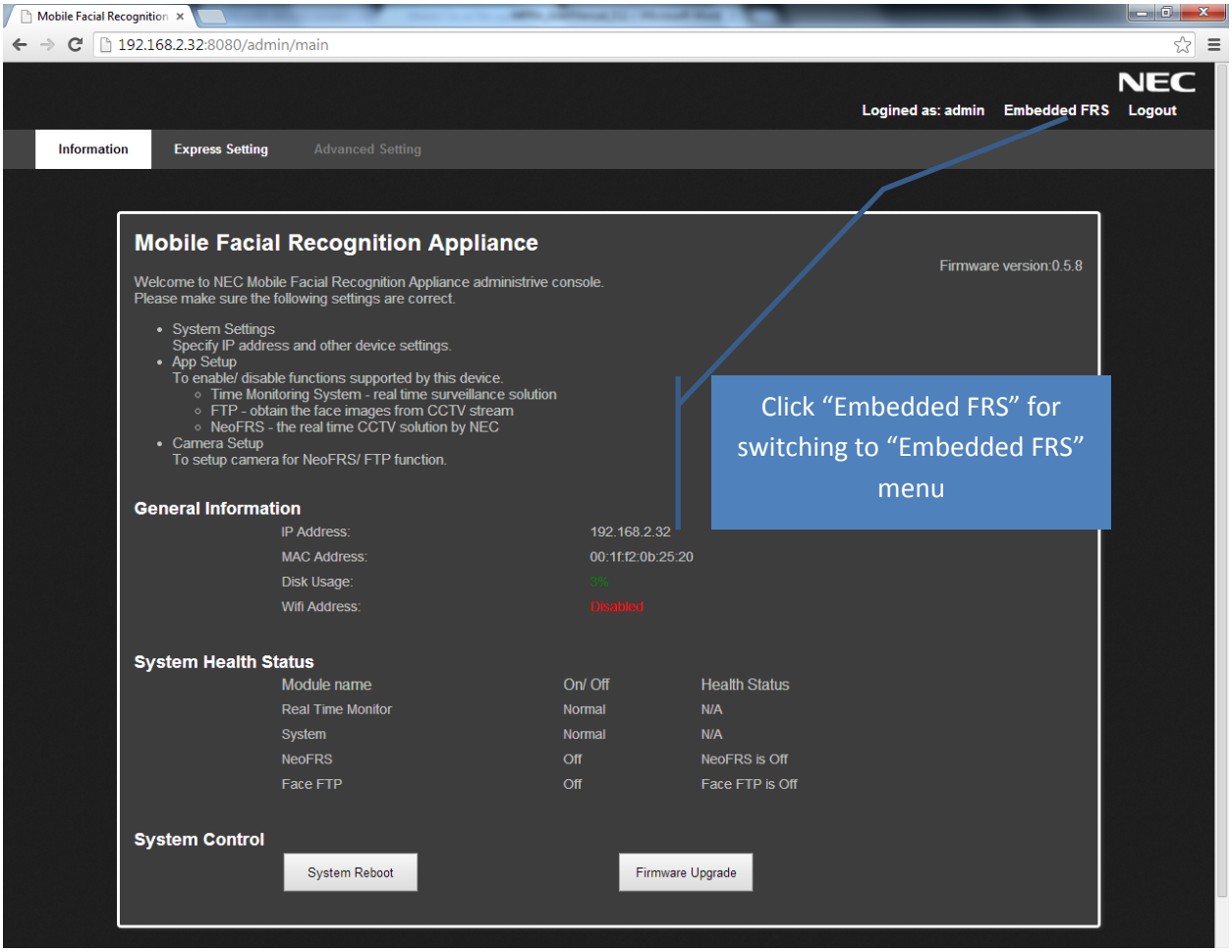
The language can be changed by selecting the language option combo box at the right bottom corner of the page.



3.3 Main menu

3.3.1 Admin

"Admin" menu is the administrative page.



Page	Usage
Information	• General Information • System Reboot • Firmware Upgrade
System Setting	• Date & Time Settings • E-Mail Notifications
Network Setting	• Lan Network • Wifi Network • 3G Network
Function Setup	• Real Time Monitoring System • NeoFRS • Face Capture FTP
Camera Setup	• Camera Settings • Quality Control Parameters

User Management	• Add/ Edit / Delete System User
Audit Log	• Server Log • System Audit Log

3.3.2 Embedded FRS

Page	Usage
Surveillance	• Alert viewer for real time monitor system
Search Record Enquiry	• Hit record enquiry • Not hit record enquiry • Hit ranking enquiry
Person Maintenance	• Facial database Maintenance

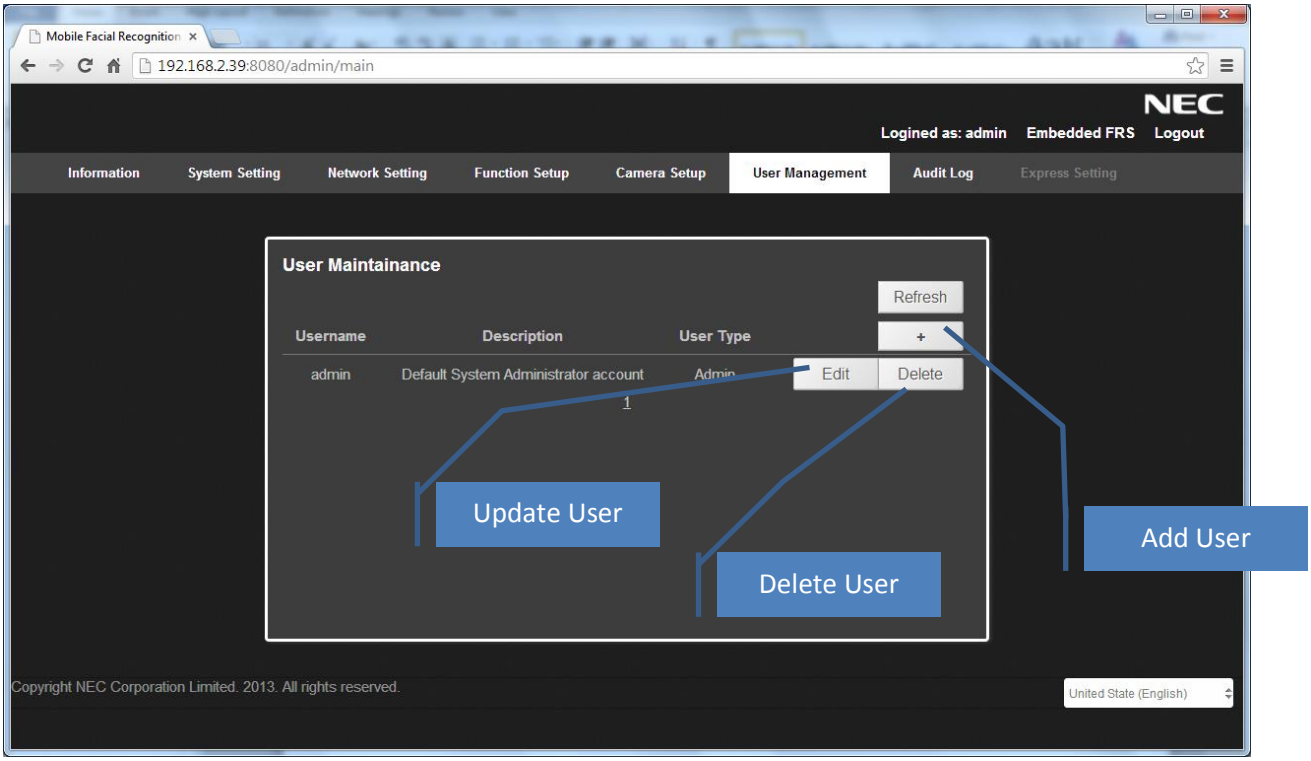
3.4 System Administration

3.4.1 User Management

The user management can be performed through “User Management” page under “Admin” menu. User with “Admin” user type can perform user account management actions, including “Add”, “Edit” and “Delete”.

There are two type of user account for the system:

- Admin: System administrator, can access both “Admin” menu and “Embedded FRS” menu
- User: General user, can only access to “Embedded FRS” menu only

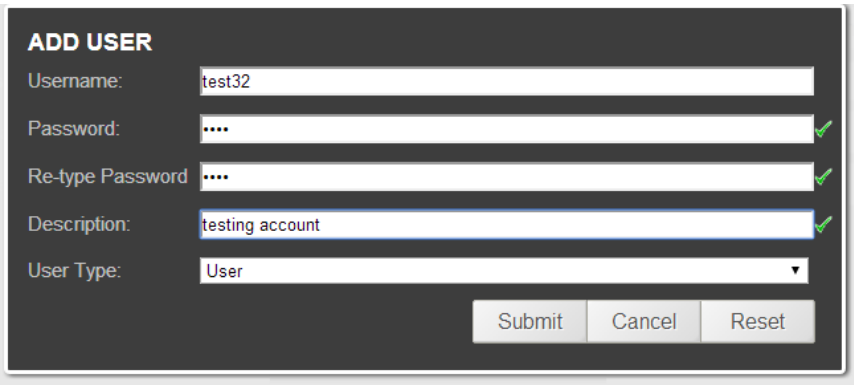


Admin user can perform user account management action via “User Management” page

3.4.1.1 Add User

To add a new user

1. Click “+” button at the user maintenance panel
2. Fill in the information accordingly and click “Submit” to confirm

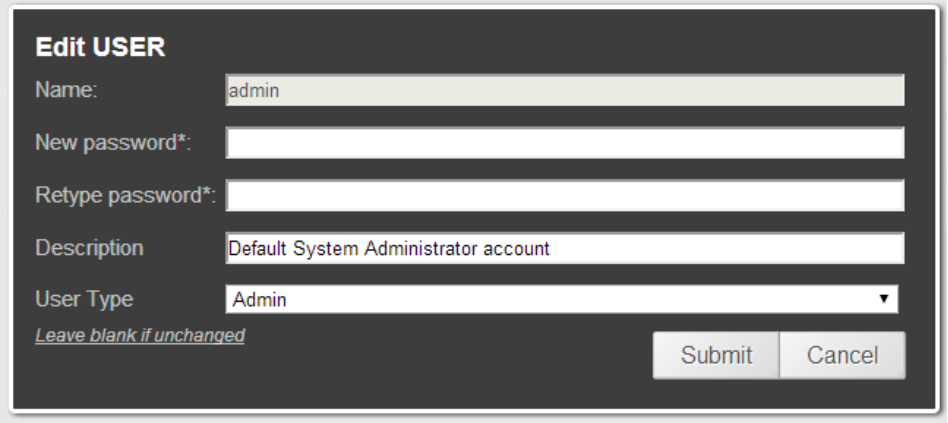


Add User popup dialog

3.4.1.2 Edit User

To edit an existing user

1. Click “Edit” button at right side of the selected user
2. Update the description/ user type
3. Type in the new password if it is necessary
4. Click “Submit” to continue the action

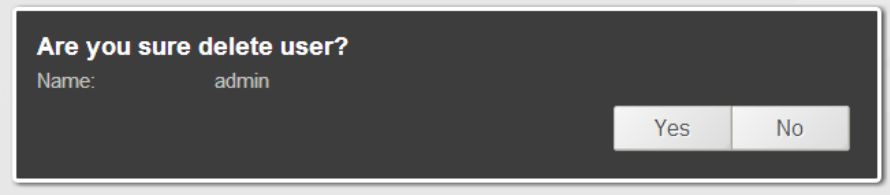


Edit User popup dialog

3.4.1.3 Delete User

To edit an existing user

1. Click “Delete” button at right side of the selected user



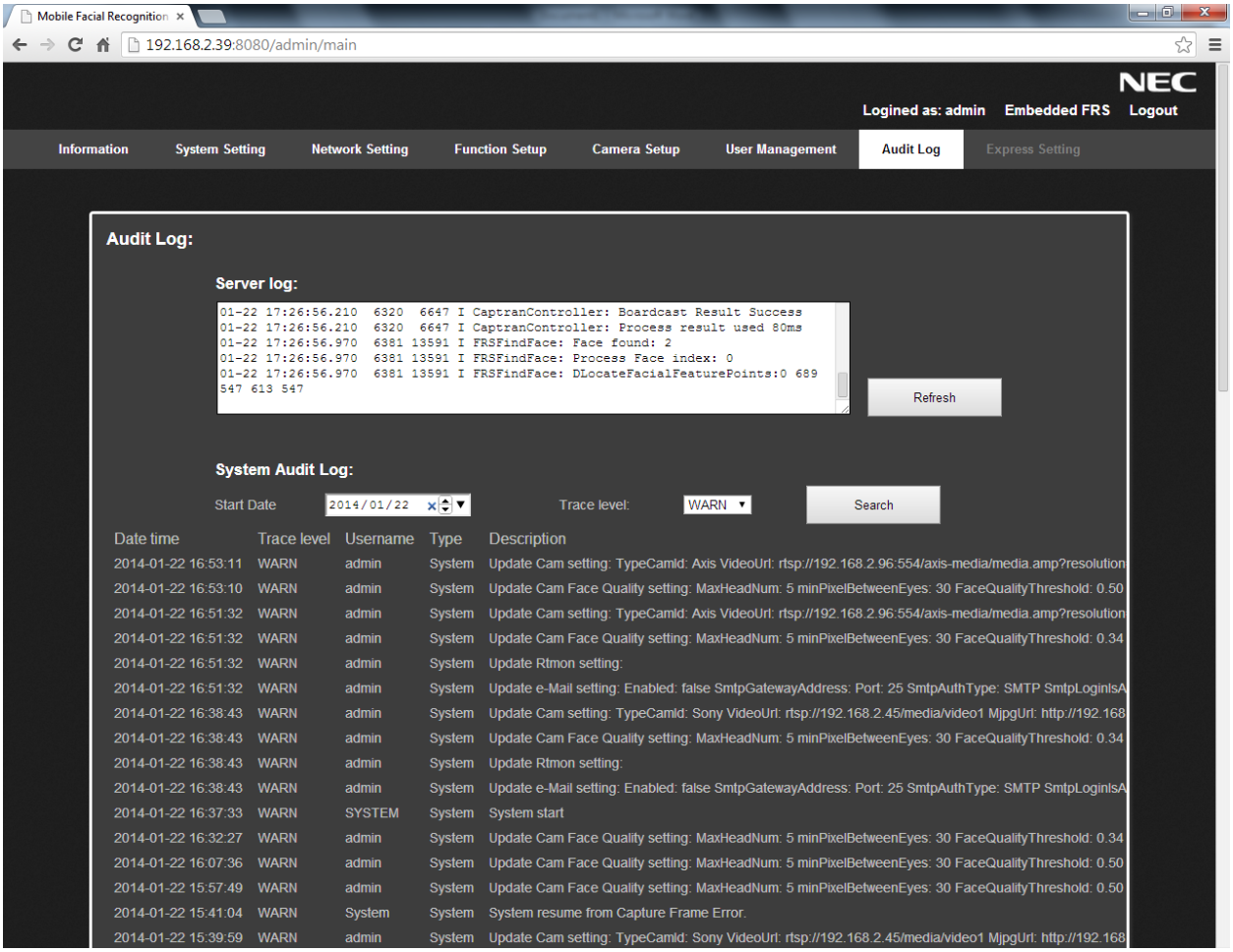
Delete User confirmation dialog

3.4.2 Log & Audit Trail

Admin user can access to system log through “Audit Log” page under “Admin” menu.

There are two type of log from the system:

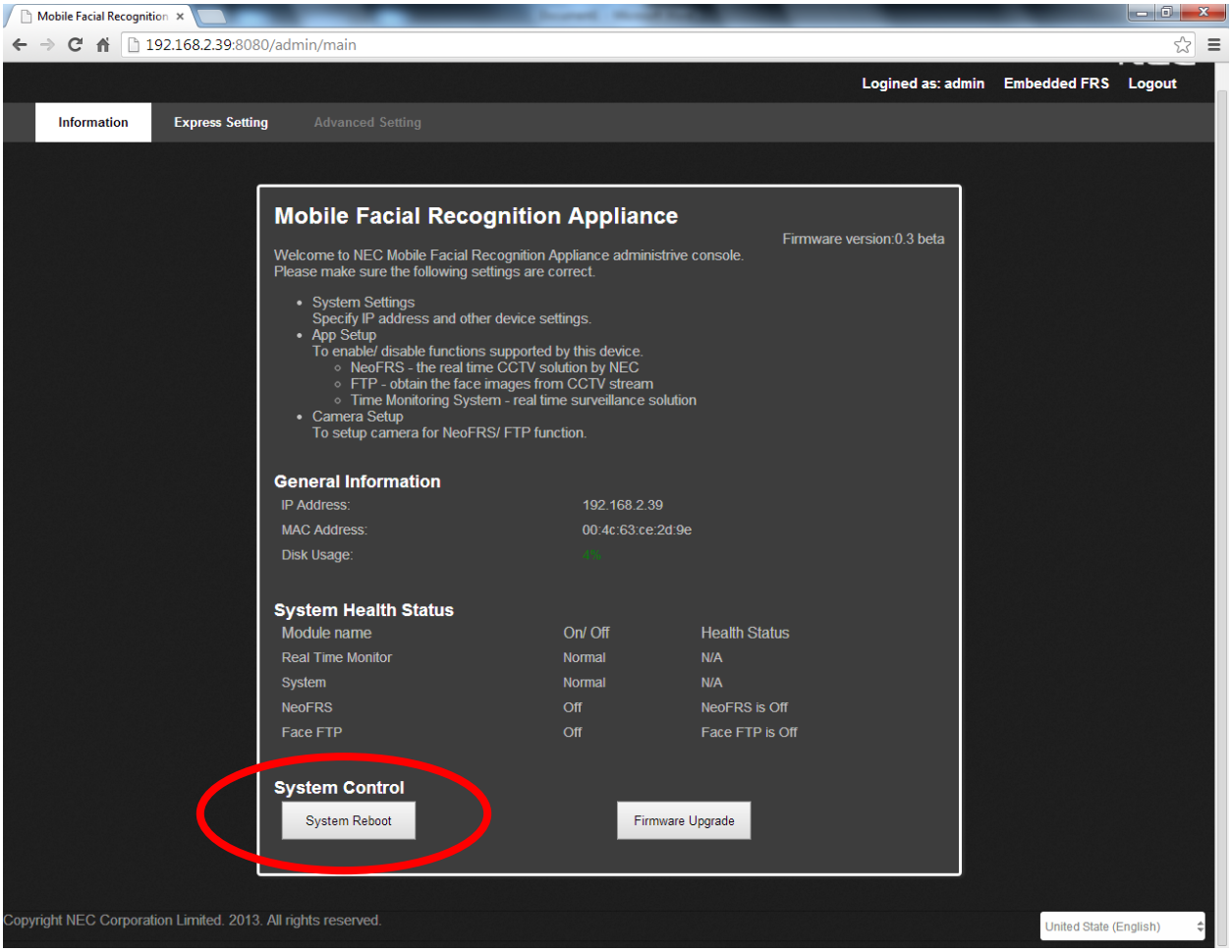
- Server Log
  - The current system running log for detail analysis
  - Please copy the log to system support engineer, if detail analysis is required
- System Audit Log
  - The system will log every system event, user operation into the system audit log.
    - Settings update
    - System startup
  - User can search the audit log by date and trace level filter
  - The system will show the audit log order by time in descending order.


Mobile Facial Recognition
192.168.2.39:8080/admin/main
NEC
Logined as: admin
Embedded FRS
Logout
Information
System Setting
Network Setting
Function Setup
Camera Setup
User Management
Audit Log
Express Setting
Audit Log:
Server log:
01-22 17:26:56.210 6320 6647 I CaptranController: Boardcast Result Success
01-22 17:26:56.210 6320 6647 I CaptranController: Process result used 80ms
01-22 17:26:56.970 6381 13591 I FRSFindFace: Face found: 2
01-22 17:26:56.970 6381 13591 I FRSFindFace: Process Face index: 0
01-22 17:26:56.970 6381 13591 I FRSFindFace: DLocateFacialFeaturePoints:0 689 547 613 547
Refresh
System Audit Log:
Start Date
2014/01/22
Trace level:
WARN
Search
Date time Trace level Username Type Description
2014-01-22 16:53:11 WARN admin System Update Cam setting: TypeCamId: Axis VideoUrl: rtsp://192.168.2.96:554/axis-media/media.amp?resolution
2014-01-22 16:53:10 WARN admin System Update Cam Face Quality setting: MaxHeadNum: 5 minPixelBetweenEyes: 30 FaceQualityThreshold: 0.50
2014-01-22 16:51:32 WARN admin System Update Cam setting: TypeCamId: Axis VideoUrl: rtsp://192.168.2.96:554/axis-media/media.amp?resolution
2014-01-22 16:51:32 WARN admin System Update Cam Face Quality setting: MaxHeadNum: 5 minPixelBetweenEyes: 30 FaceQualityThreshold: 0.34
2014-01-22 16:51:32 WARN admin System Update Rtmon setting:
2014-01-22 16:51:32 WARN admin System Update e-Mail setting: Enabled: false SmtpGatewayAddress: Port: 25 SmtpAuthType: SMTP SmtpLoginIsA
2014-01-22 16:38:43 WARN admin System Update Cam setting: TypeCamId: Sony VideoUrl: rtsp://192.168.2.45/media/video1 MjpgUrl: http://192.168
2014-01-22 16:38:43 WARN admin System Update Cam Face Quality setting: MaxHeadNum: 5 minPixelBetweenEyes: 30 FaceQualityThreshold: 0.34
2014-01-22 16:38:43 WARN admin System Update Rtmon setting:
2014-01-22 16:38:43 WARN admin System Update e-Mail setting: Enabled: false SmtpGatewayAddress: Port: 25 SmtpAuthType: SMTP SmtpLoginIsA
2014-01-22 16:37:33 WARN SYSTEM System System start
2014-01-22 16:32:27 WARN admin System Update Cam Face Quality setting: MaxHeadNum: 5 minPixelBetweenEyes: 30 FaceQualityThreshold: 0.34
2014-01-22 16:07:36 WARN admin System Update Cam Face Quality setting: MaxHeadNum: 5 minPixelBetweenEyes: 30 FaceQualityThreshold: 0.50
2014-01-22 15:57:49 WARN admin System Update Cam Face Quality setting: MaxHeadNum: 5 minPixelBetweenEyes: 30 FaceQualityThreshold: 0.50
2014-01-22 15:41:04 WARN System System System resume from Capture Frame Error.
2014-01-22 15:39:59 WARN admin System Update Cam setting: TypeCamId: Sony VideoUrl: rtsp://192.168.2.45/media/video1 MjpgUrl: http://192.168

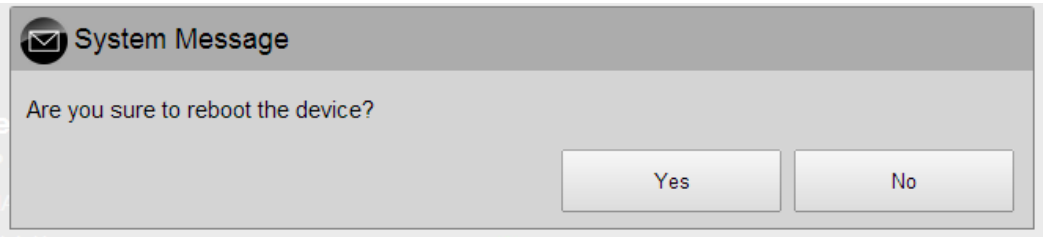
Admin user can check the system log via “Audit Log” page

3.4.3 System Reboot

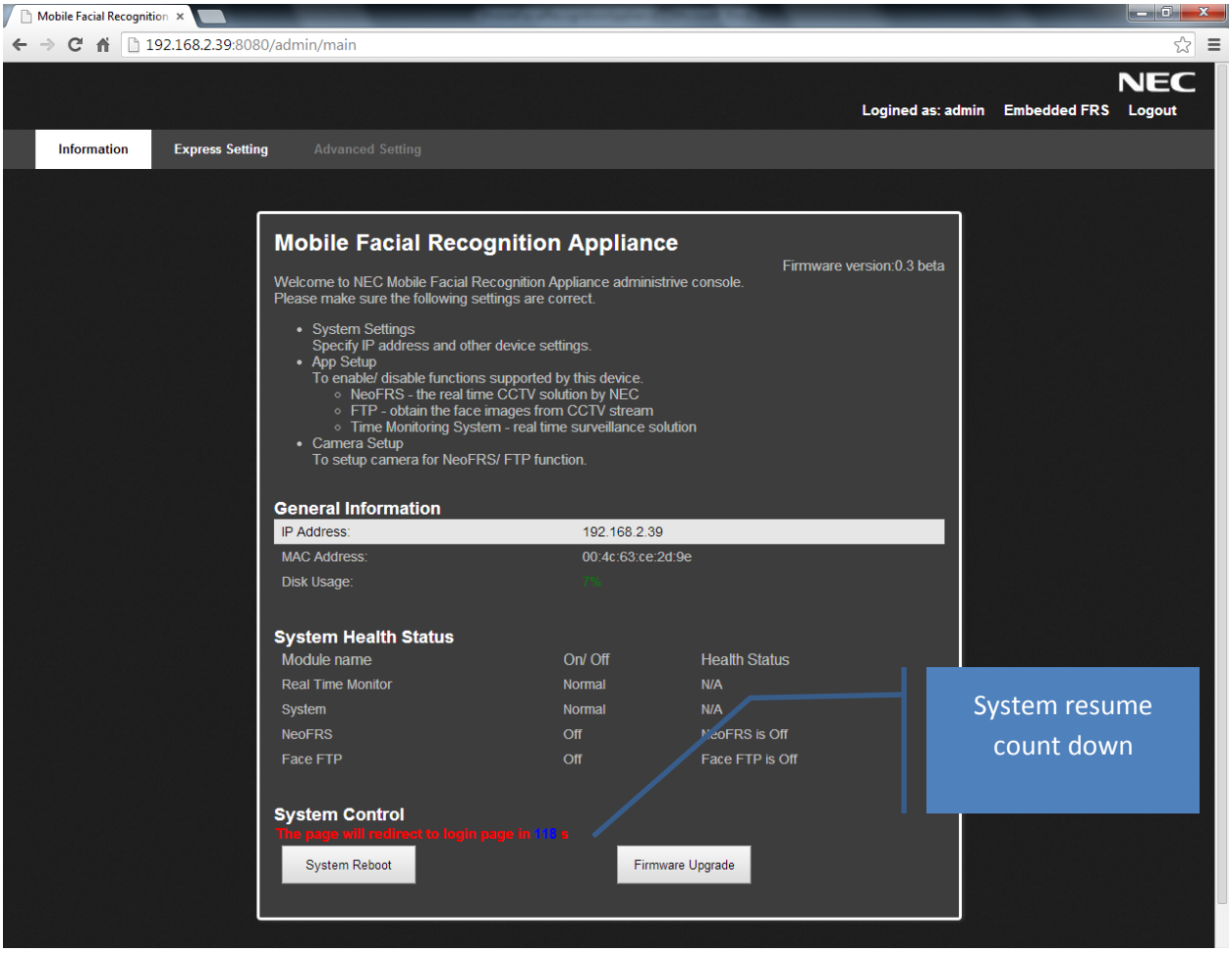
Software reboot can be performed via web interface. To trigger software reboot, please go to "Information" page and click "System Reboot" button. After the button is clicked, the system will be rebooted and the web page will redirect to login page after 120 seconds.



Admin user can perform system reboot via "Information" page



Confirmation dialog will be prompted if "Reboot" button is clicked.

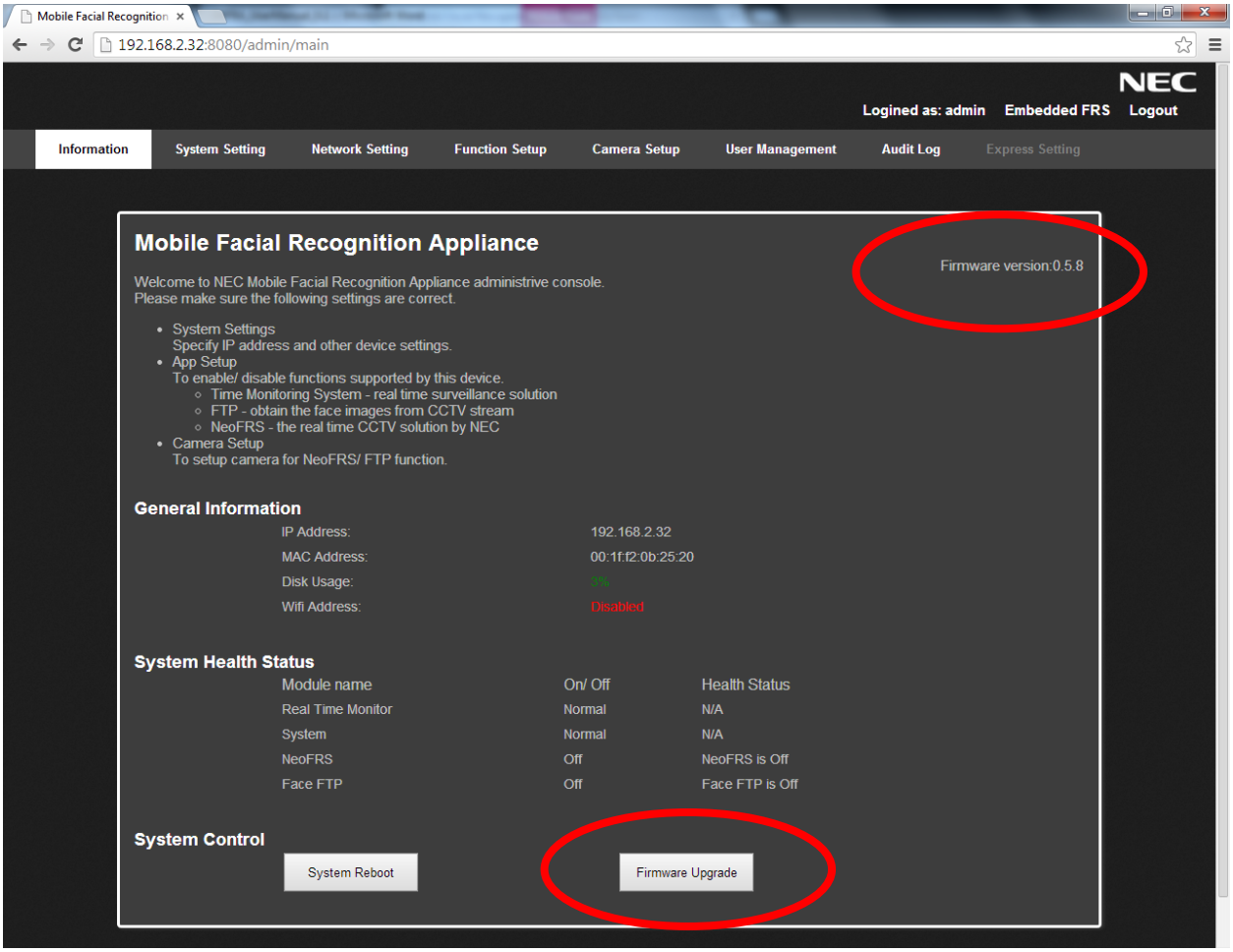


The page will redirect to login page automatically in 120 seconds.

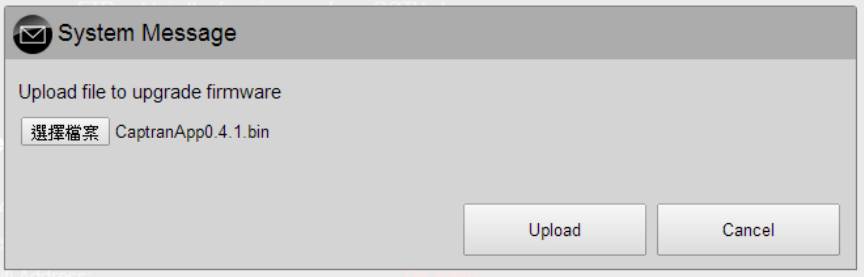
3.4.4 Firmware Upgrade

The firmware version can be found at the top right corner of “Information” page. To upgrade the firmware, please click the “Firmware Upgrade” button at the bottom and click upload after selecting the file via the dialog box. The system will be upgraded and the page will redirect to login page after 90 seconds.

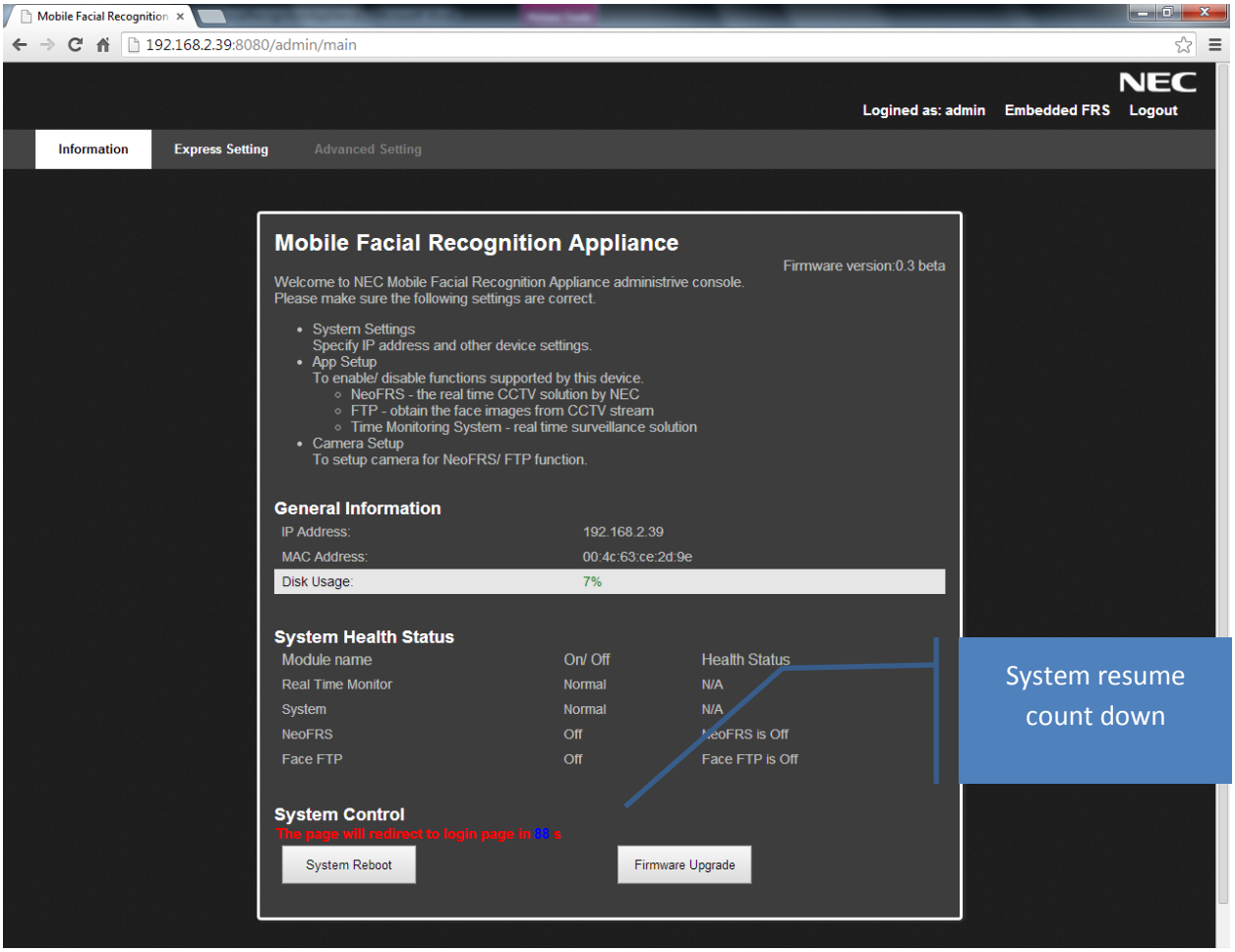
Buzzer “Beep” sound will be triggered, if the update procedure is started. If the system update and restart successfully, another “Beep” sound will be triggered.



Admin user can perform firmware upgrade via "Information" page and the current firmware version can be obtained at the top right corner of the page.



File upload dialog will be prompted if "Firmware Update" button is clicked. After selecting the new firmware file, click "Upload" button to continue the firmware update.



The page will redirect to login page automatically in 90 seconds.

3.4.5 Date Time Settings

Date & Time settings can be modified via “System Setting” page.

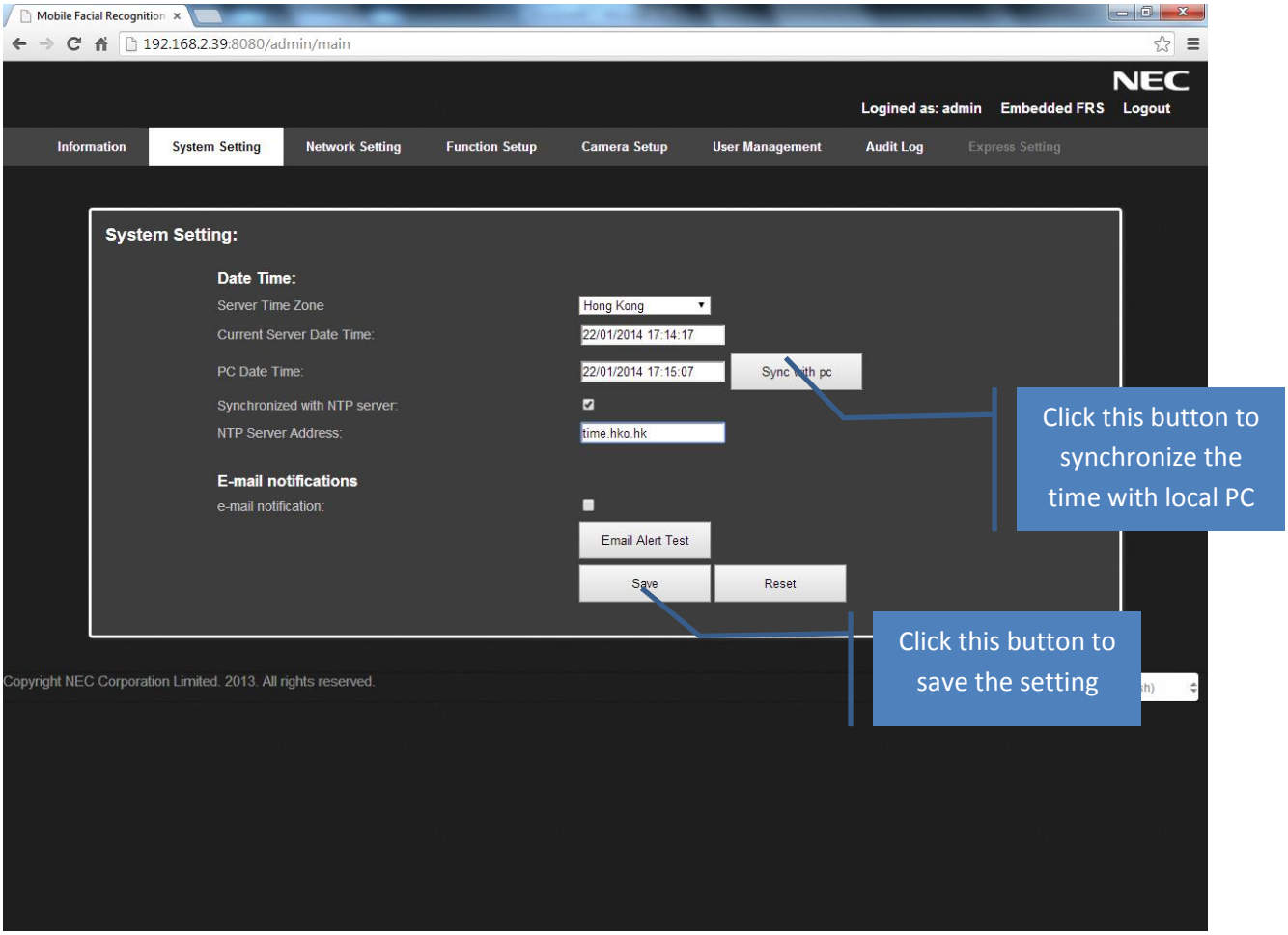
3.4.5.1 Update Time Zone & NTP Service Provider

Parameters	Description
Server Time Zone	The time zone of the server, which can be selected via combo box
Synchronized with NTP server	If it is checked, the system will synchronize the system time with provide NTP service provider periodically
NTP Server Address	The NTP service provider URL

The settings will be effective after the “Save” button is clicked.

3.4.5.2 Synchronize the system time with local PC

Click “Sync with PC” button to synchronize the system time with local PC.



Admin user can change the date time setting via “System Setting” page

3.4.6 E-mail Notifications

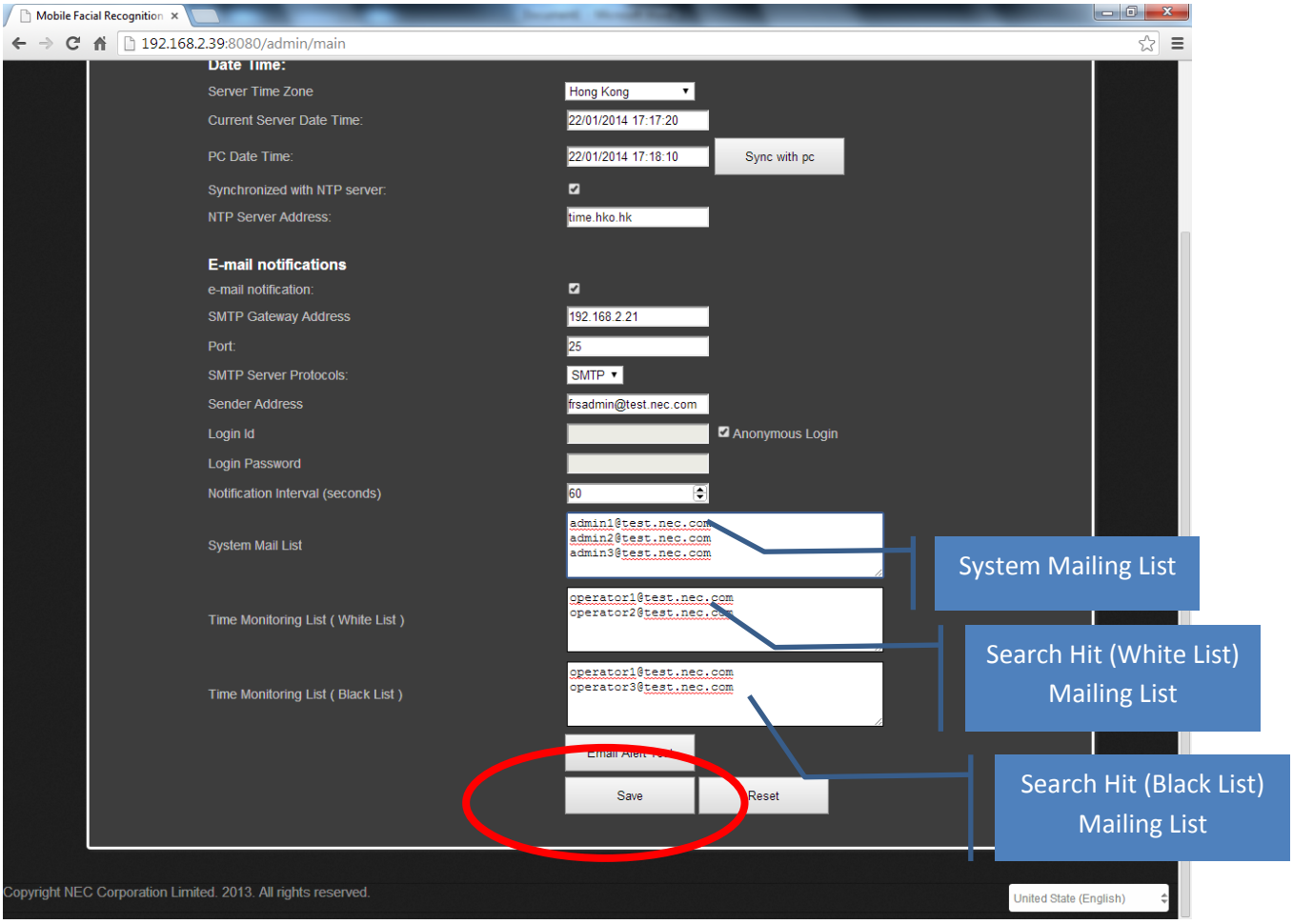
The system provide e-mail notifications feature, there are 3 kinds of email alert.

- System alert
  E-mail alert will be sent to predefined e-mail list : “System Mail List”, if system alert such as “Frame capture failed”, “System startup” is occurs by the system.
- Hit record alert for white list
  Email alert will be sent to predefined e-mail list, if white listed person is matched in real time monitoring system.
- Hit record alert for black list
  Email alert will be sent to predefined e-mail, if black listed person is matched in real time monitoring system.

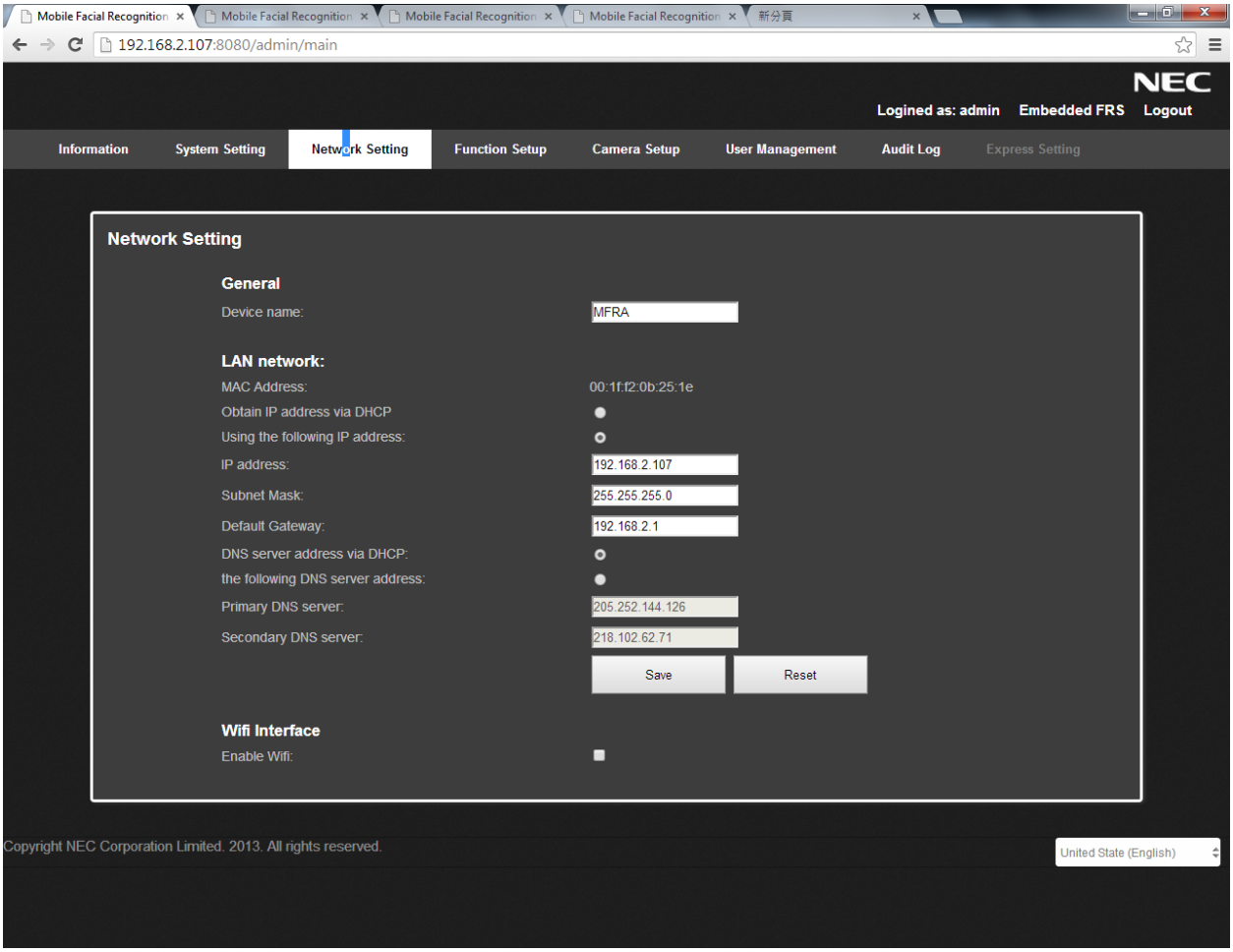
To enable the e-mail notification, please check the “e-mail notification” and fill in the mail server gateway information. The system support both SMTP and TLS protocol.

For the email list, please input one email address on each line of the textbox as shown as the screenshot below.

The system will sent the testing mail to all listed e-mail account, if the “Email Alert Test” button is clicked. To make the settings effective, please click “Save” button at the bottom of the page.


Mobile Facial Recognition
192.168.2.39:8080/admin/main
Date Time:
Server Time Zone
Hong Kong
Current Server Date Time:
22/01/2014 17:17:20
PC Date Time:
22/01/2014 17:18:10
Sync with pc
Synchronized with NTP server:
NTP Server Address:
time.hko.hk
E-mail notifications
e-mail notification:
SMTP Gateway Address
192.168.2.21
Port:
25
SMTP Server Protocols:
SMTP
Sender Address
frsadmin@test.nec.com
Login Id
Anonymous Login
Login Password
Notification Interval (seconds)
60
System Mail List
admin1@test.nec.com
admin2@test.nec.com
admin3@test.nec.com
Time Monitoring List (White List)
operator1@test.nec.com
operator2@test.nec.com
Time Monitoring List (Black List)
operator1@test.nec.com
operator3@test.nec.com
Save
Reset
Copyright NEC Corporation Limited. 2013. All rights reserved.
United State (English)
System Mailing List
Search Hit (White List) Mailing List
Search Hit (Black List) Mailing List

3.4.7 Network Settings



3.4.7.1 Change Device Name

To update the device name (hostname), update the “Device name” textbox and click “Save” to confirm.

3.4.7.2 LAN Network Setup

Obtain IP via DHCP

- Select “Option IP address via DHCP” radio button

Obtain DNS server address via DHCP

- Select “DNS server address via DHCP” radio button

Use Static IP Address

- Select “Using the following IP address” radio button
- Input the “IP address”, “Subnet mask” and “Default gateway” textboxes

Manual input DNS server address

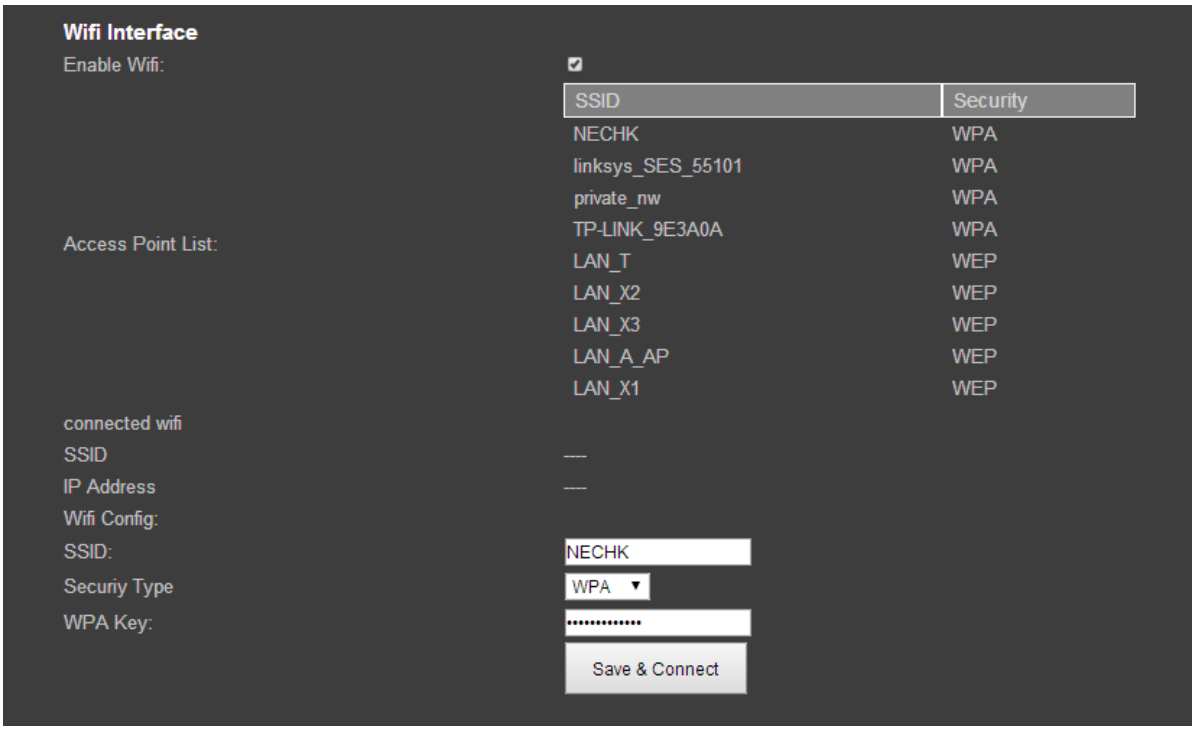
- Select “Using the following DNS server address” radio button
- Input the “Primary DNS server” and “Secondary DNS server” textboxes

After complete updating LAN network setting, click “Save” to confirm the changes.

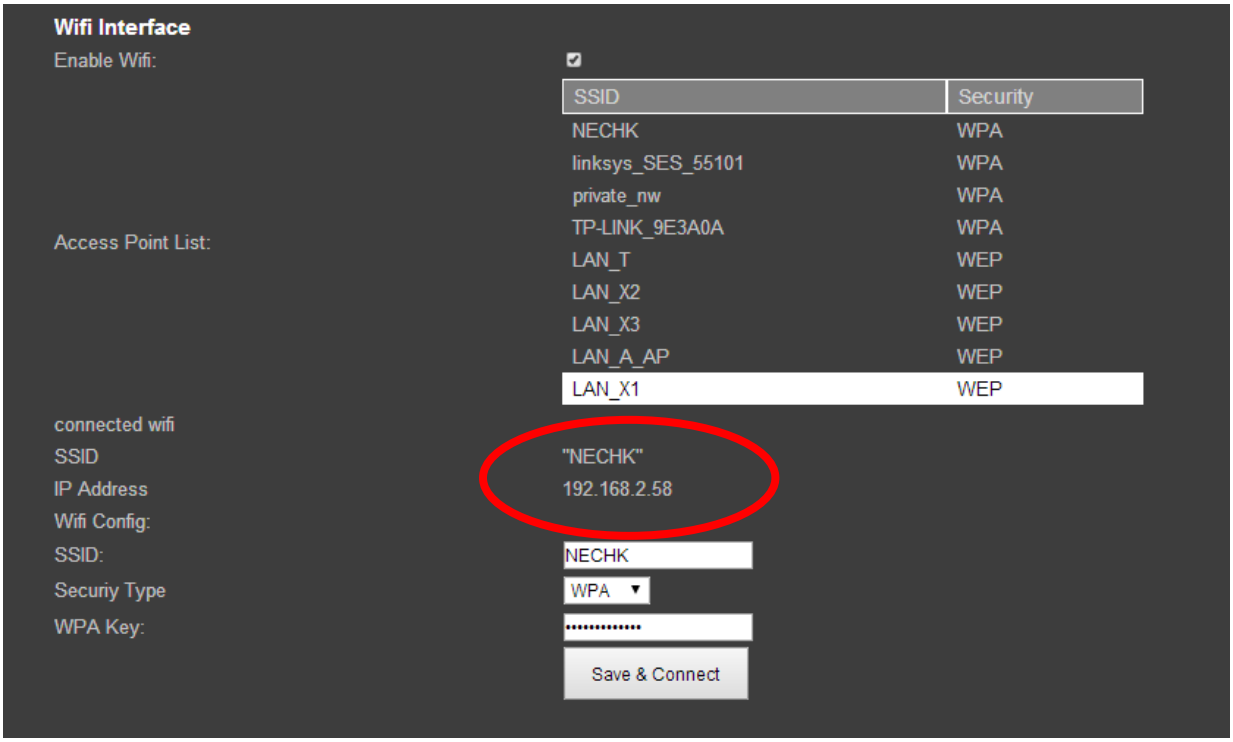
3.4.7.3 WIFI Interface Setup

To enable WIFI interface, please follow the instructions below:

1. Check the checkbox “Enable WIFI” under WIFI Interface section, the appliance will search for the WIFI access point automatically and update the network setup page directly.
2. Select the WIFI access point for the “Access Point List”
3. Enter the key of the access point and click “Save & Connect”
4. *If the appliance connects to the access point successfully, the IP Address will be shown.*
5. Update the LAN network, and set both IP/ DNS address from DNS, then the WIFI interface is ready to use.



After select the access point, enter the key and click “Save & Connect”



If the appliance connects to the access point successfully, the IP Address will be shown.

3.4.8 Camera Setup

Live CCTV Camera can be setup through "Admin->Camera Setup" Menu. The system supports IP cameras with H.264 or motion jpeg streaming. The system supports IP cameras with H.264 or motion jpeg streaming.

3.4.8.1 Camera Settings

The default "Camera Type" is set to "Custom", the parameters are as follow:

Parameters	Description
IP Camera Url	URL from IP camera with either H.264 or motion jpeg streaming.
Motion Jpeg Url	For video preview at Surveillance page. If it is empty, the live preview will not be displayed
Capture Delay	The capture interval between frames, default it is set to 300 ms.

Please check the IP camera manual for the URL.

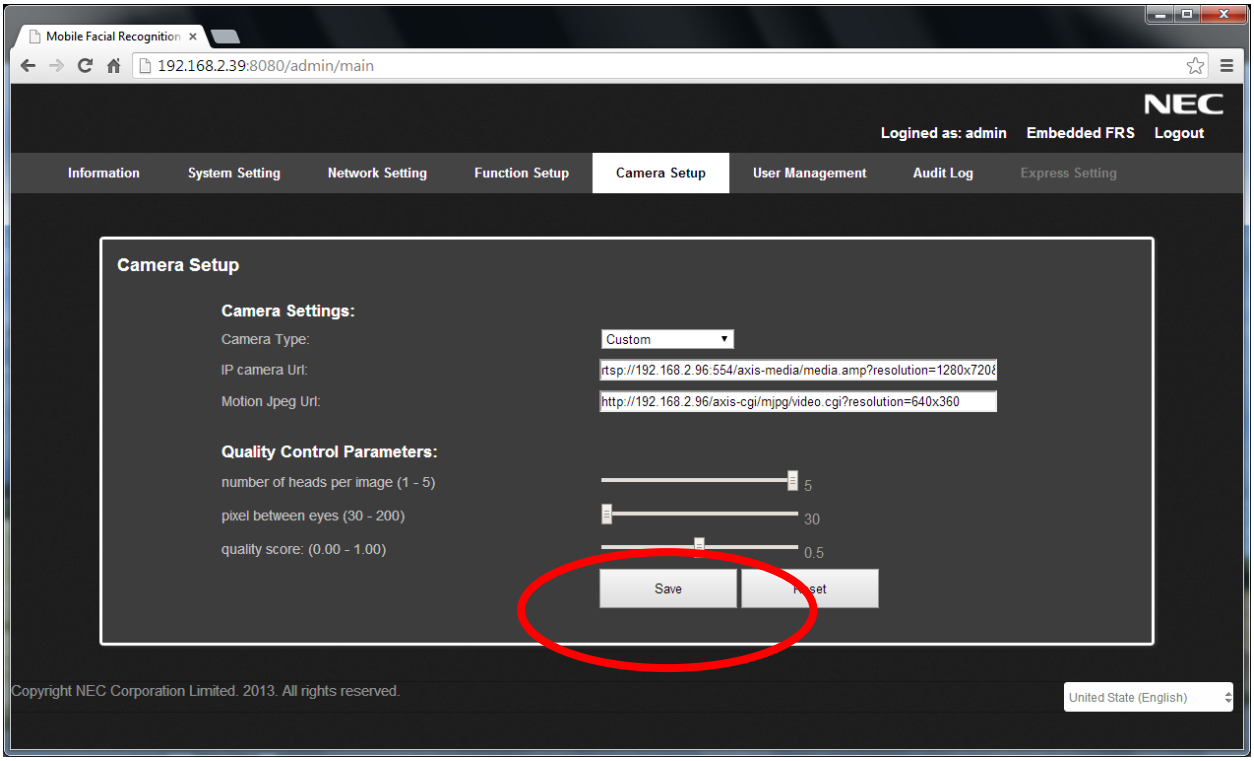
Here is the list of cameras which are being tested and predefined camera type can be used for ease of setup. For the detail recommendation regarding the supported cameras, please refer to Appendix A – G.

Brand Name	Model	Camera Type	Resolution
AXIS	P1346 P1355	AXIS Camera	1920 x 1080
Panasonic	WV-SP508E	Panasonic Camera	1920 x 1080
Sony	SNC-CH240	Sony Camera	1920 x 1080
Hikvison	DS-2CD854F-EW	Hikvison Camera	1280 x 720
Samsung	SNO-6011R	Samung Camera	1920 x 1080
Bosch	NBN-832V-IP	Bosch Camera	1920 x 1080

3.4.8.2 Quality Control Parameters

Some facial quality control parameters can be set in camera setup, which is used for fine tuning the sensitivity for face detection.

Parameters	Range	Description
Max number of heads per image	1 – 5	Max number of heads can be detected in the screen.
Min pixel between eyes	30 – 200	Min pixel between eyes for detected face, if the pixel between eyes of the faces is smaller than this value, the face cannot be detected.
Face quality score	0.00 – 1.00	Face quality threshold score for face detection. For any face detected in image, face quality score will be given by the system. If the face score is larger than this value, the face image will be qualified to continue the further action. (e.g. real time monitoring)



3.5 Integrated Real Time Monitoring System

Working with IP camera stream, the system can be sued as real time monitoring system. Images can be obtained from the live stream of IP camera and the system will perform facial matching against the internal enrolled person record. The system will alert for and hit/ not hit case for user further action.

3.5.1 Real Time Monitoring System Settings

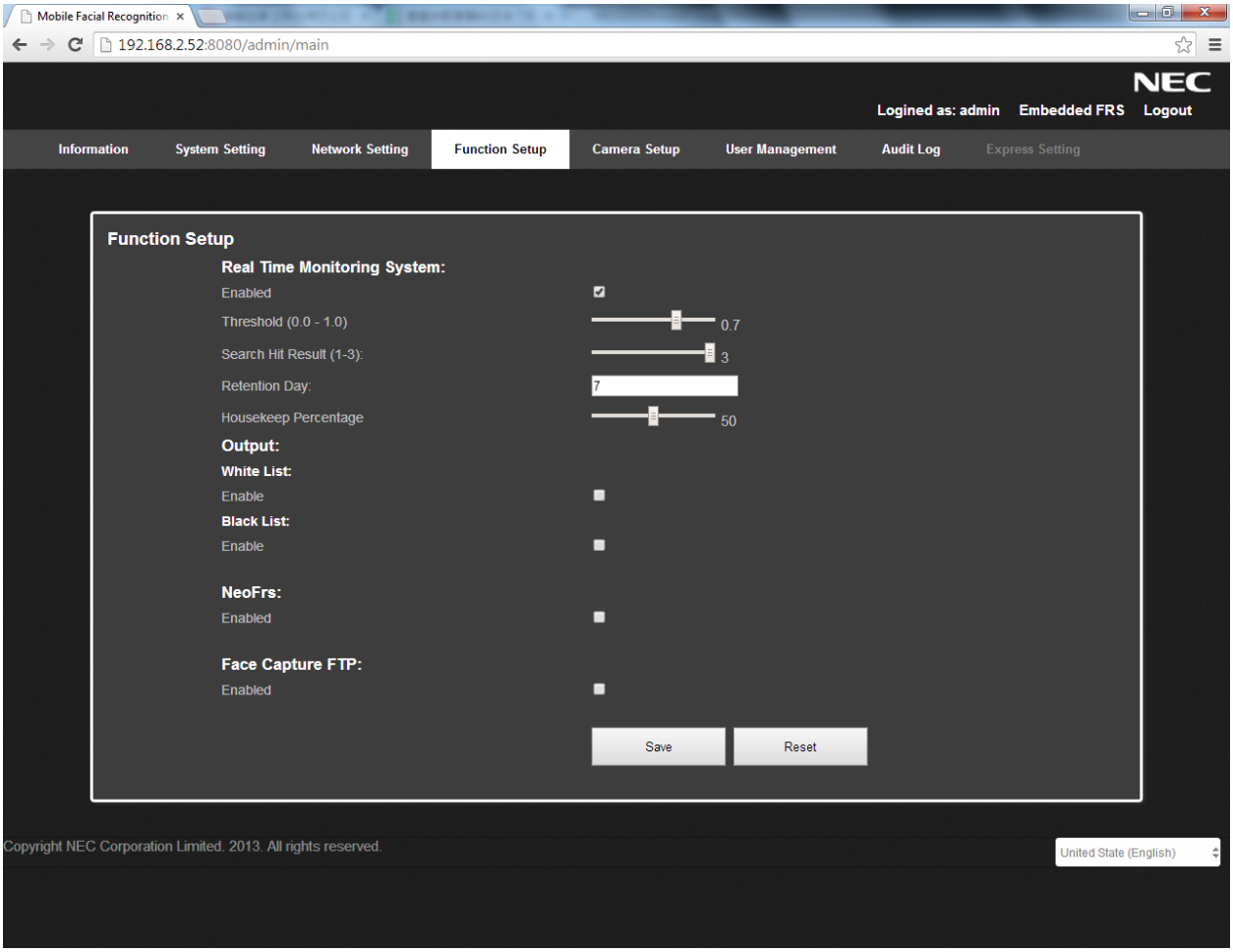
The real time monitoring function can be enabled via “Function Setup” page. Check the “Enabled” checkbox for enabling the system.

Here are the descriptions of real time monitoring system options:

Parameters	Description
Threshold	The facial matching threshold for the real time monitoring system. If any one of face matching score between live face image and database face image is larger than the threshold, search hit will be generated. Otherwise, not hit record will be generated instead.
Max Search Hit Result	Max number of hit photos e.g. if 6 hit photos is obtained from one hit case, while “Max Search Hit Result” is set to 3. Only 3 matched photos (with the highest score) will be saved in database.
Retention Day	The retention period in days. If the search record is expired, the system will remove the data automatically.
Housekeep Percentage	Alternative mechanism for search record retention, if search record

	database size reach the housekeep percentage (e.g. 50 %), the system will start remove the oldest data automatically. The current search record database size can be obtained at “Admin->Information” page.

To make the settings effective, please click “Save” button at the bottom of the page.



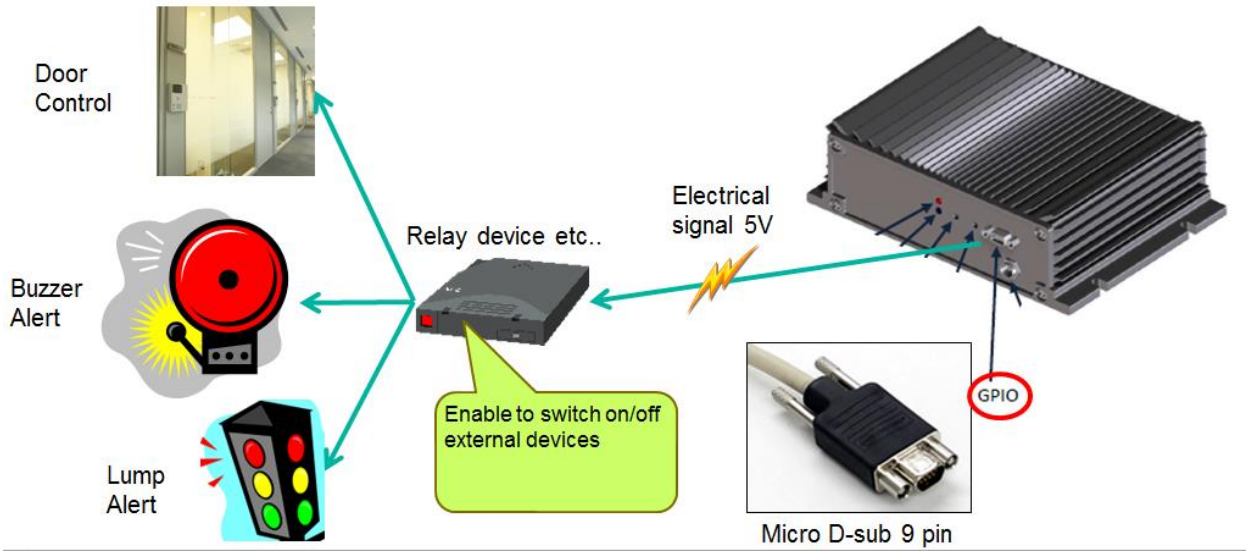
Real time Monitoring System Settings can be found under “Function Setup” page

3.5.2 Trigger External Device

External device can be triggered by black/ white list hit. The external device can be connected to the appliance with the GPIO.

The pin assignment are as follow:

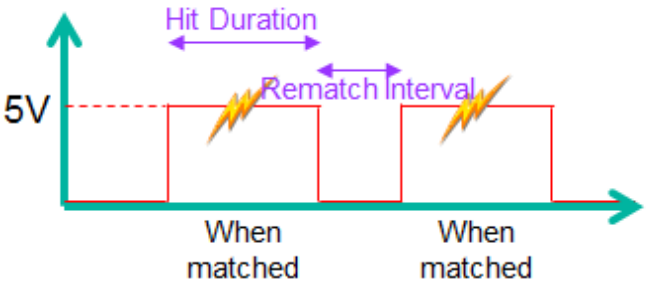
White List Hit	**Pin 02**
Black List Hit	Pin 04



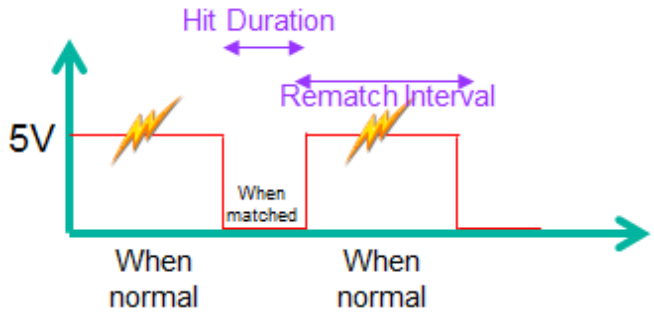
The appliance can trigger external device with the provided GPIO.

The external device setting can be enabled under the section “Output” at “Function Setup" page. The White List Hit Trigger and Black List Trigger can be individually enabled. The parameters for the trigger are as follow.

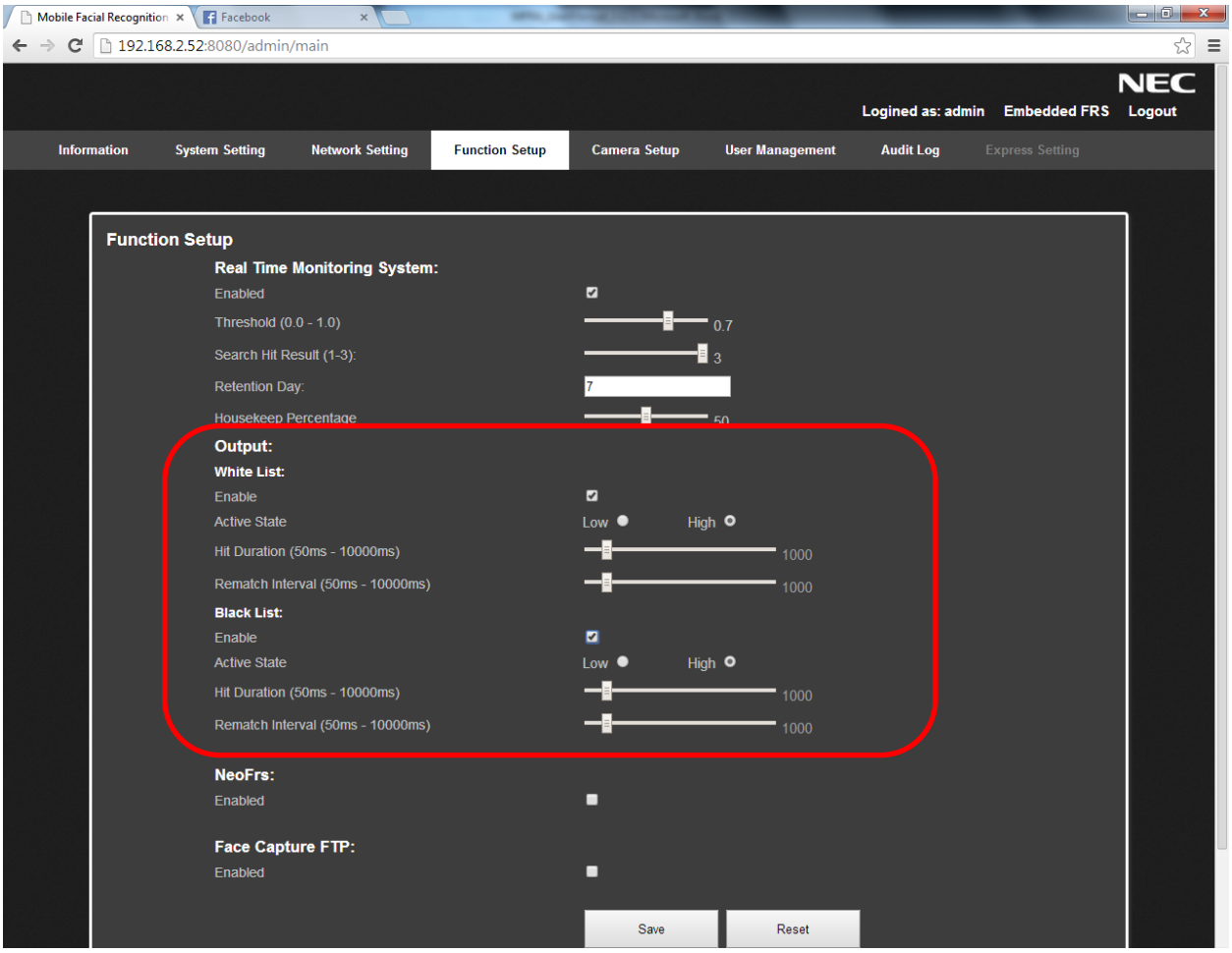
Parameters	Description
Active State	Define the output voltage for the hit case
Hit Duration (ms)	How long will the voltage kept during white list/ black list hit
Rematch Interval (ms)	How long will the voltage be retriggered, if same person hit the list again.



Active State is set to “High”



Active State is set to "Low"

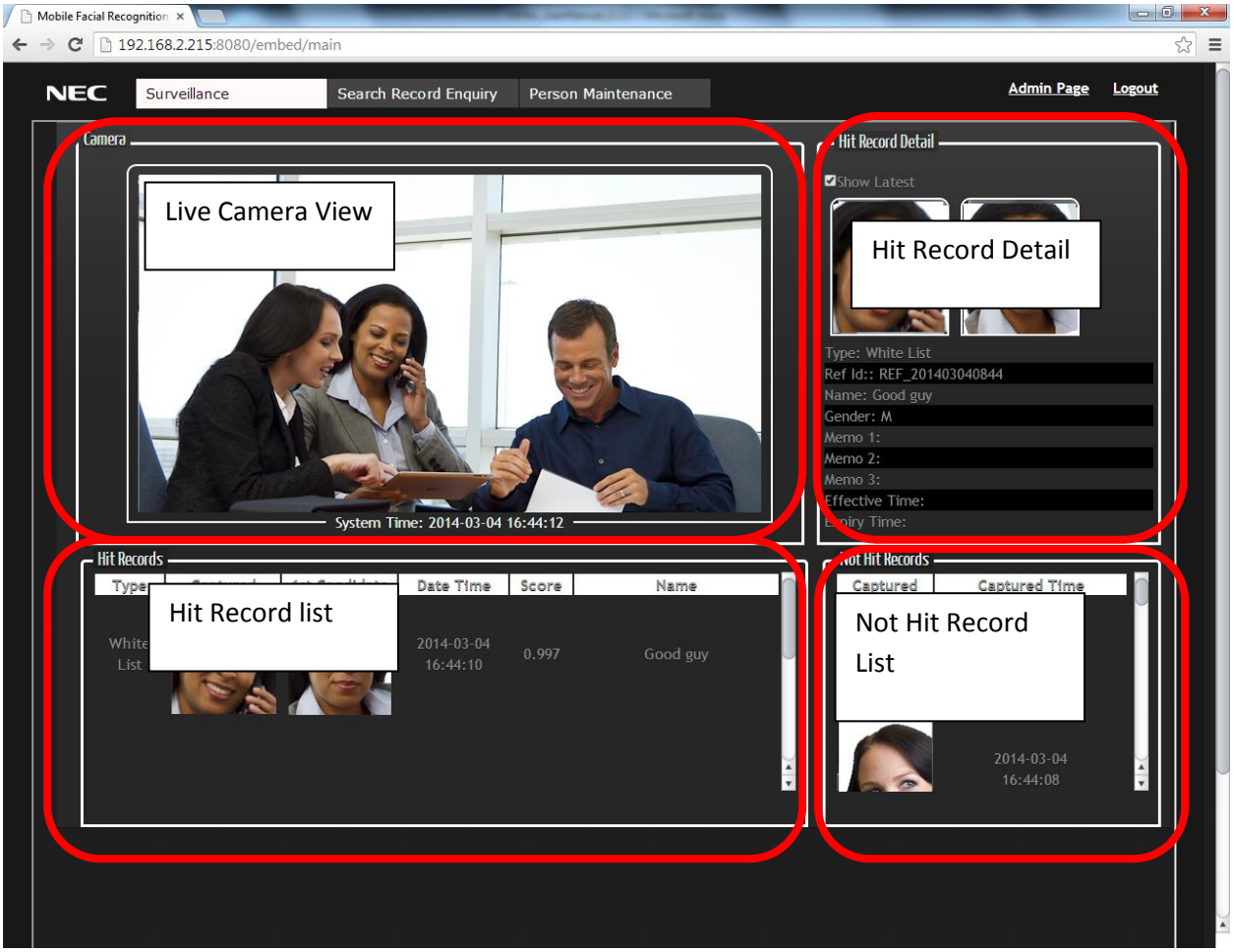


Output setting can be found under "Function Setup" page

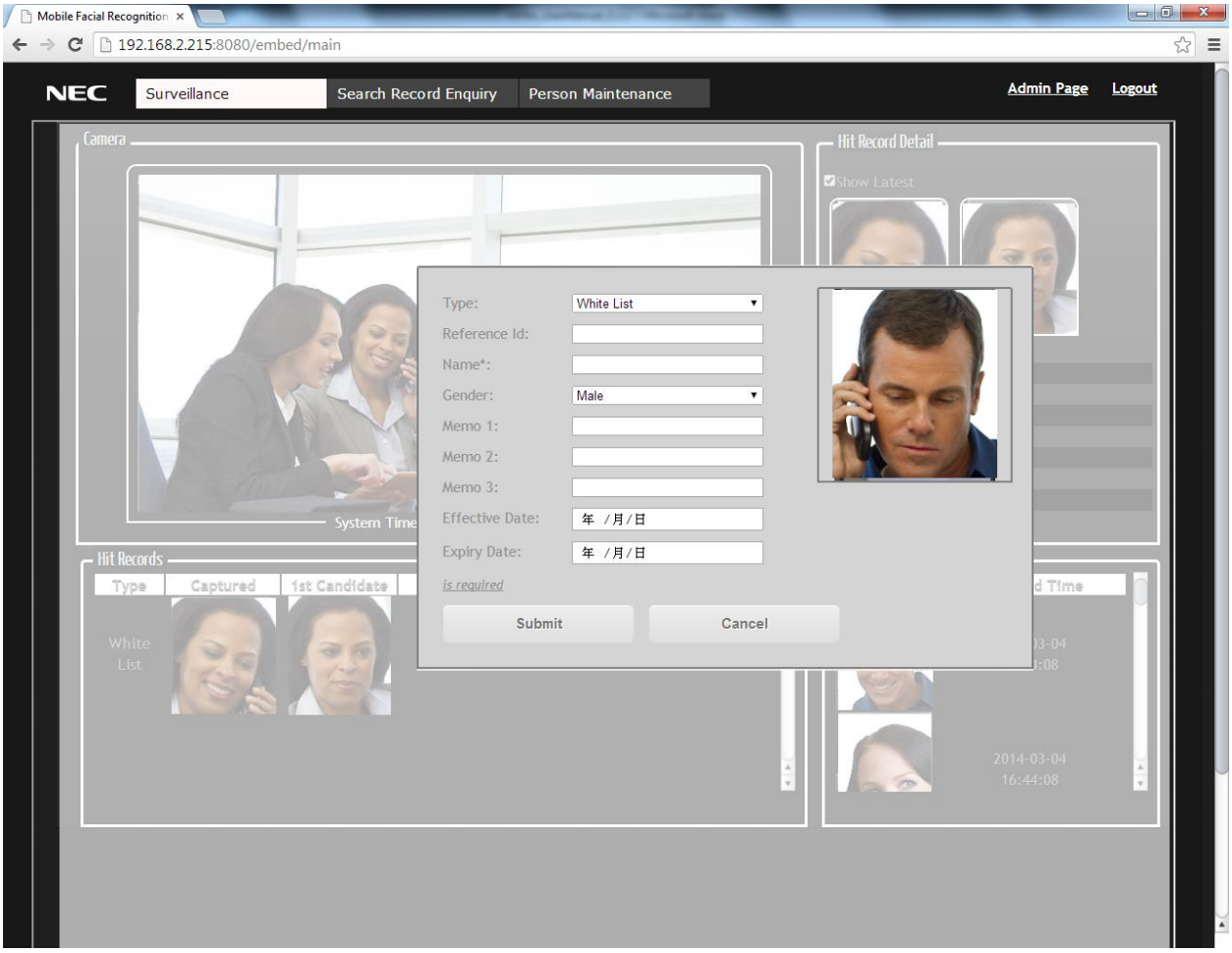
3.5.3 Surveillance

There are 4 panels in “Surveillance” page.

- Camera
  - Display the live camera streaming
- Hit Record Detail
  - Show the hit record detail
  - If “Show Latest” is checked, then it will update automatically according to the new hit record
- Hit Records
  - Instant hit records
  - If the hit record row is clicked, the detail information will be shown at “Hit Record Details”
- Not Hit Records
  - Instant not hit records
  - User can enroll the not hit record by clicking the image



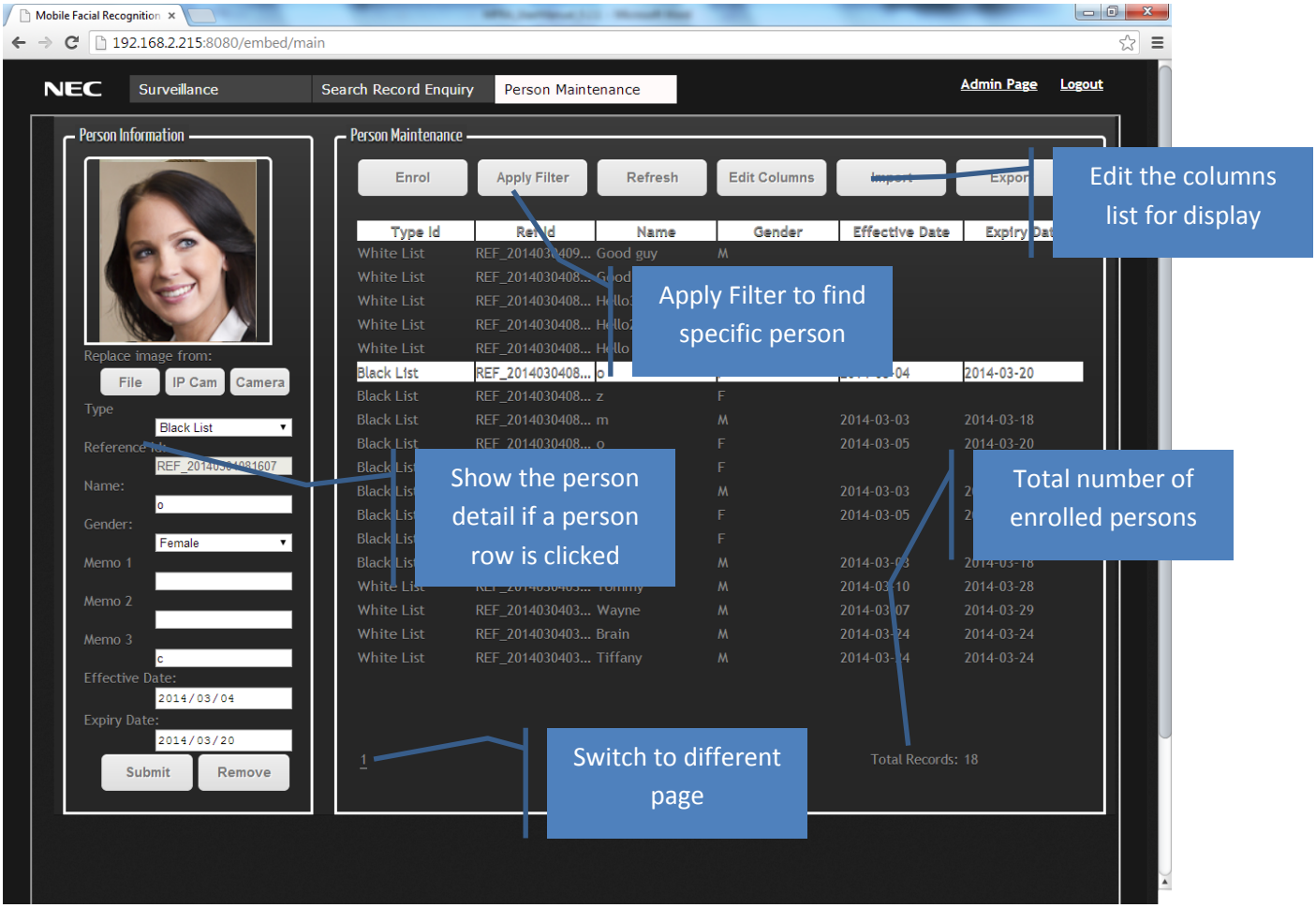
Surveillance page can be found under Embedded FRS menu



Enroll a person from Not Hit List

3.5.4 Person Maintenance

3.5.4.1 Person List Navigation

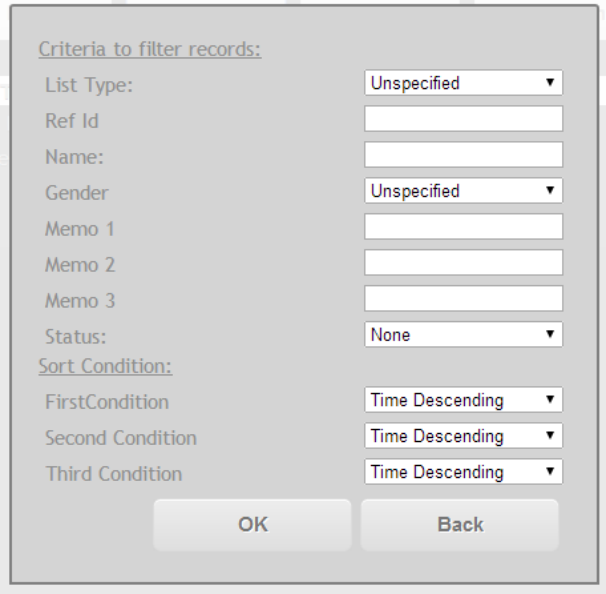


Person Maintenance page can be find under Embedded FRS menu.

Applying Search Filter

To locate a person from a large list, filter can be applied. Filter dialog will be prompted, if “Apply Filter” button is clicked.

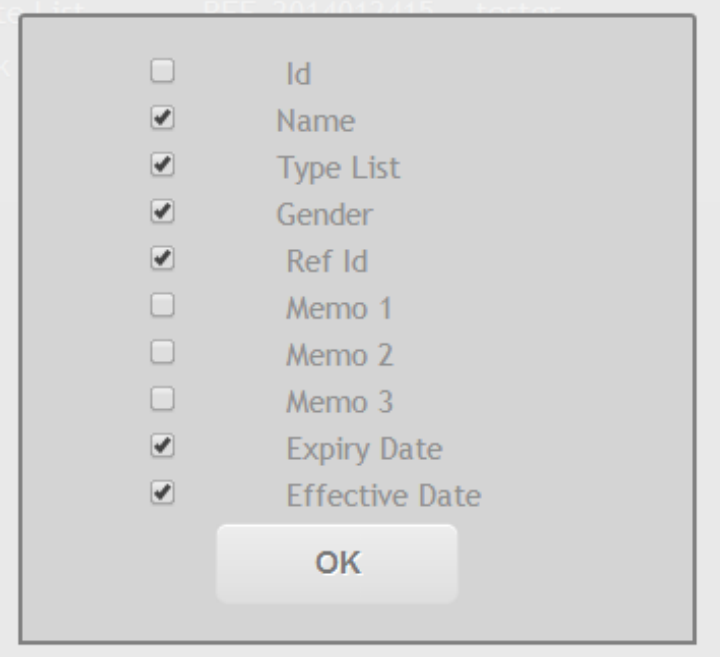
Person Filter	
List Type	Person list type filter • White List or • Black List
Reference ID	The text filter of reference ID If it is applied, only the person with “reference ID” containing the exactly matched string will be shown at person maintenance list.
Name	The text filter of name If it is applied, only the person with “name” containing the exactly matched string will be shown at person maintenance list.
Gender	Gender filter • Male • Female
Memo 1	The text filter of memo 1 If it is applied, only the person with “memo 1” containing the exactly matched string will be shown at person maintenance list.
Memo 2	The text filter of memo 2 If it is applied, only the person with “memo 2” containing the exactly matched string will be shown at person maintenance list.
Memo 3	The text filter of memo 3 If it is applied, only the person with “memo 3” containing the exactly matched string will be shown at person maintenance list.
Status	Effective/ Expiry Status filter • Active • Expired • Pending
Sort Condition	
First Condition	The first sorting condition, the search result can be sorted by Time, Ref ID, Name, Gender, List Type, Memo 1, Memo 2 or Memo 3 in either ascending or descending order
Second Condition	The second sorting condition, the search result can be sorted by Time, Ref ID, Name, Gender, List Type, Memo 1, Memo 2 or Memo 3 in either ascending or descending order
Third Condition	The third sorting condition, the search result can be sorted by Time, Ref ID, Name, Gender, List Type, Memo 1, Memo 2 or Memo 3 in either ascending or descending order



Search Filter Dialog

Applying Search Filter

To customize the person list view, the columns of the person can be selected. If “Edit Columns” button is click, the following dialog will be shown. The person list view will show the information according to the columns selection.



Edit Columns Dialog

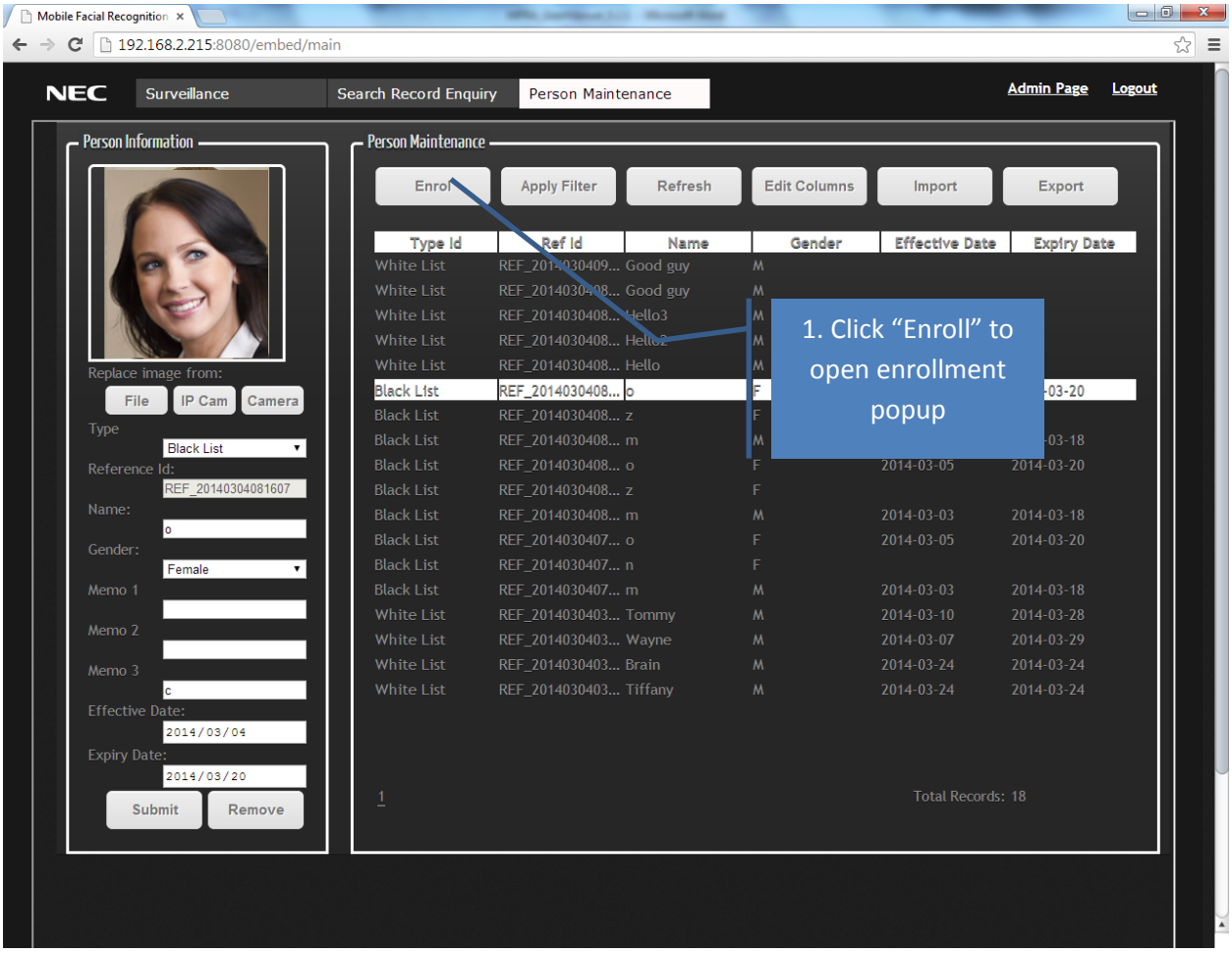
3.5.4.2 Enroll Person

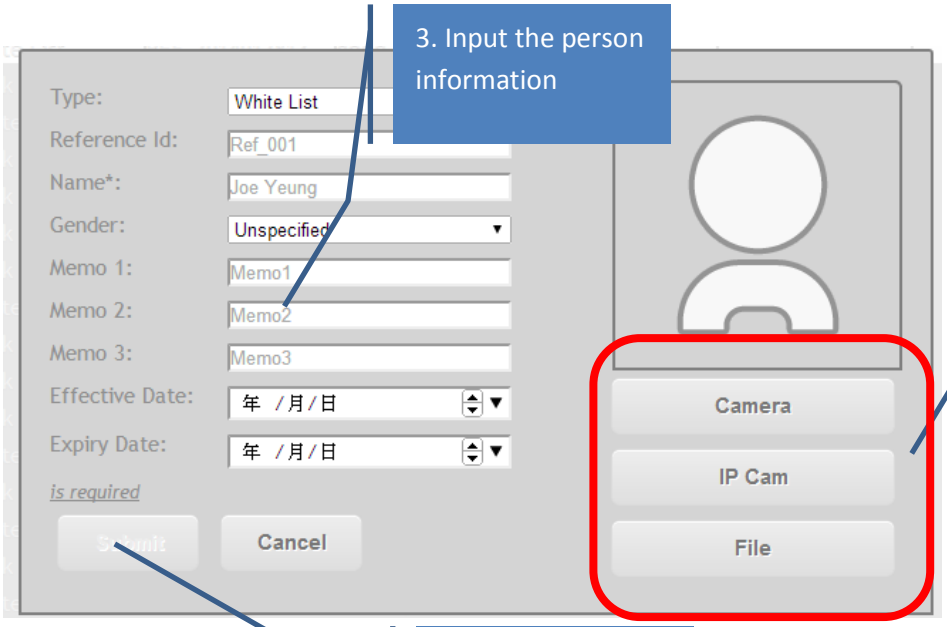
To enroll a new person record

1. Click the “Enroll Person” button
2. Select the photo by one of the following method:
    a. Capture from camera
        - USB Camera
        - Available only at PC
    b. Capture from IP Camera
        - Capture from the IP Camrea defined in Camera Settings
    c. Load from file
        - Load a jpeg file from the OS
3. Input the person information
4. Click Subitted to confirm the action

List of fields for person data

Field	Mandatory	Description
Type	Yes	Person List type, it should be either Black List or White List. If door control is enabled, when the white listed person is matched by the real time monitoring system, door on signal will be triggered.
Reference ID	No	Unique reference id for the person. If it is not set, the system will generate a reference id for the enrollment. This value cannot be changed after the person is enrolled.
Name	Yes	The name of person
Gender	No	Gender of person. Male or Female or Unspeific
Memo1	No	Any user defined string
Memo2	No	Any user defined string
Memo3	No	Any user defined string
Effective Date	No	Effective date of person record
Expiry Date	No	Expriy date of person record
Photo	Yes	Person photo for facial matching



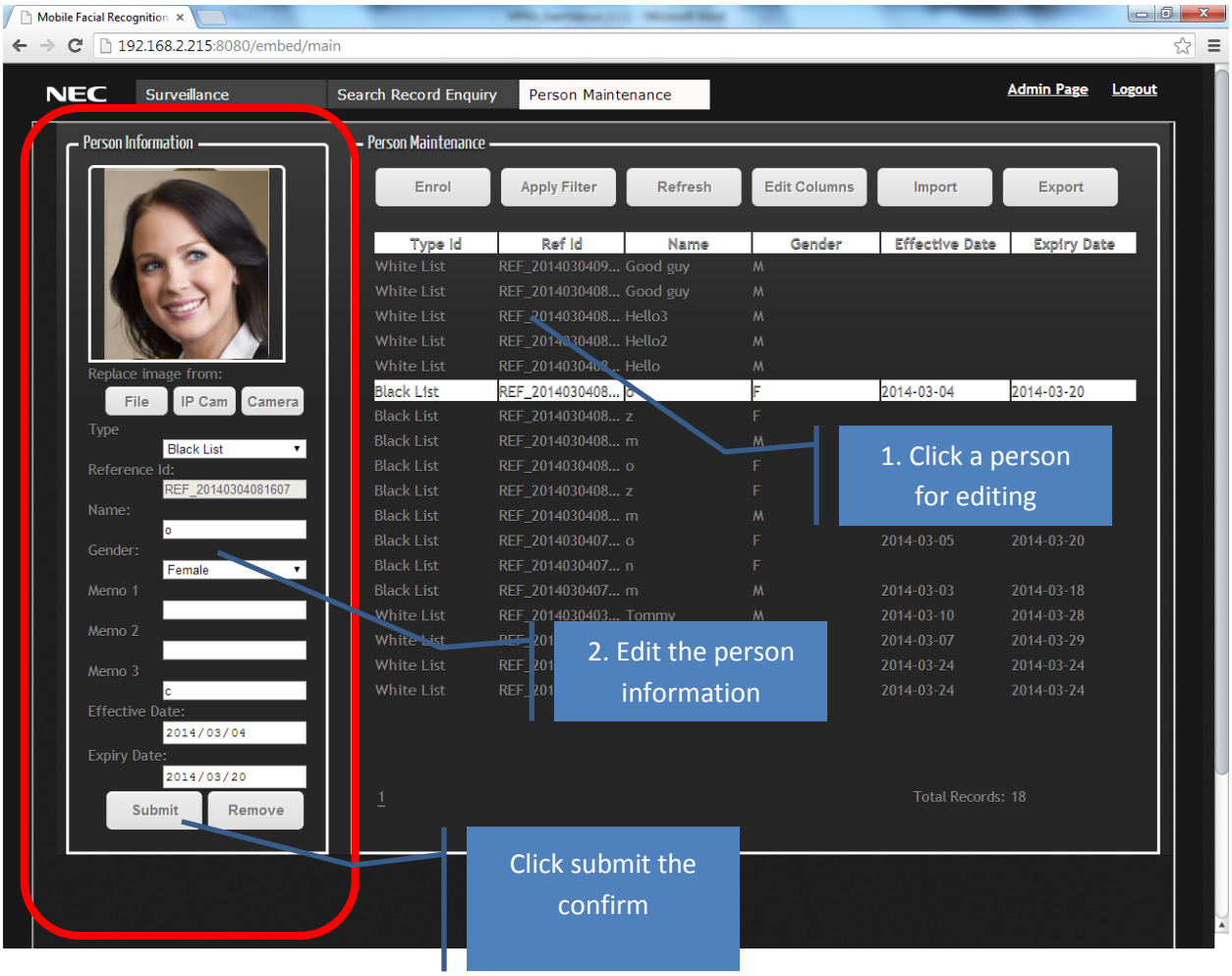


Person Enrollment Dialog

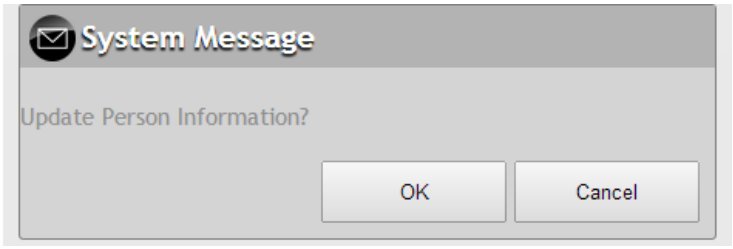
3.5.4.3 Edit person information

To edit person record

1. Select a person at the “Person Maintance” Panel, the person information detail will be displayed at “Person Information” on the right hand side “
2. Update the information at “Person Information” and click “Submit” to confirm the action.



Person information edit

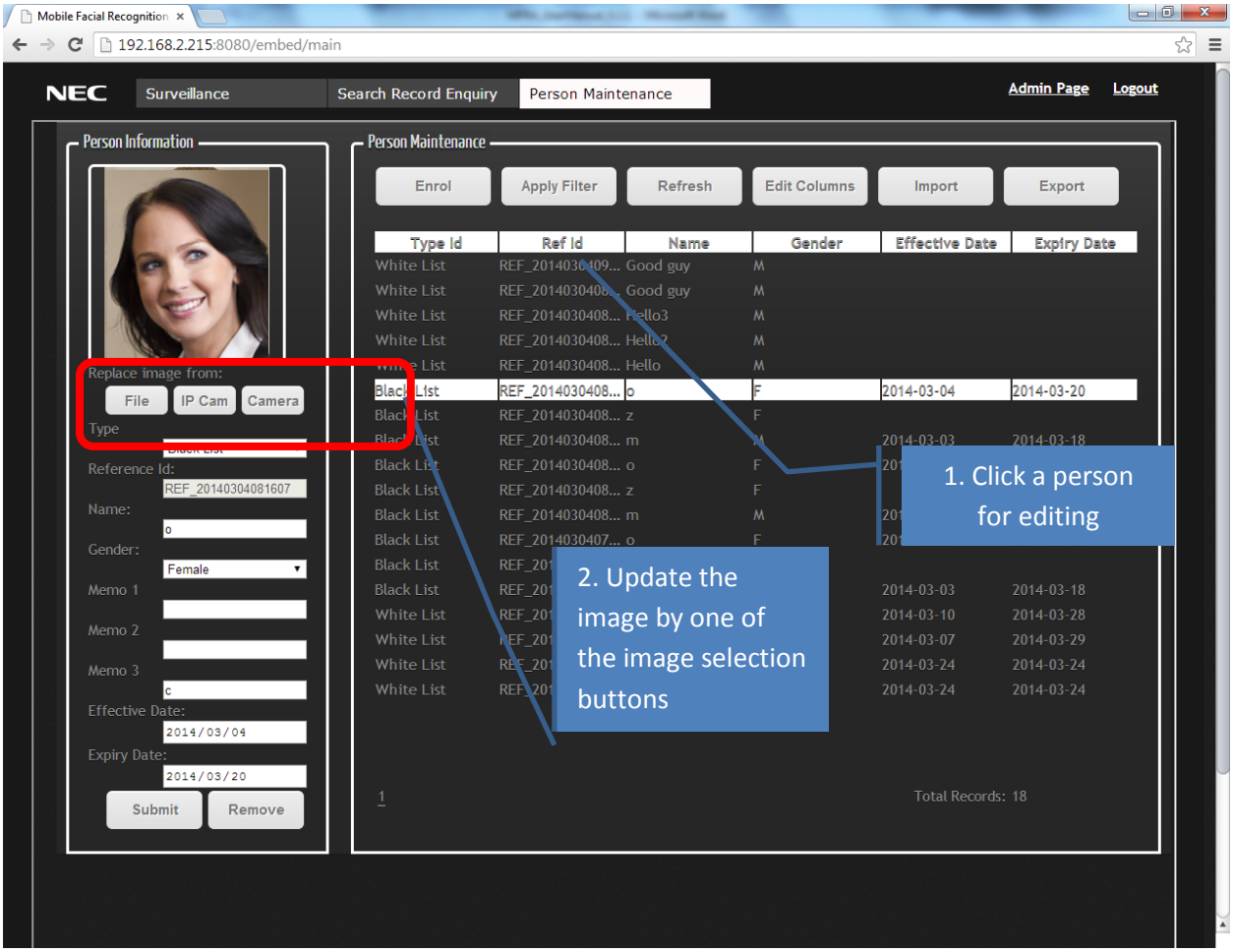


Update person confirmation dialog

3.5.4.4 Update Person Photo

To update a person photo

1. Select a person at the “Person Maintance” Panel, the person information detail will be displayed
2. Update the image by one of the image selection buttons

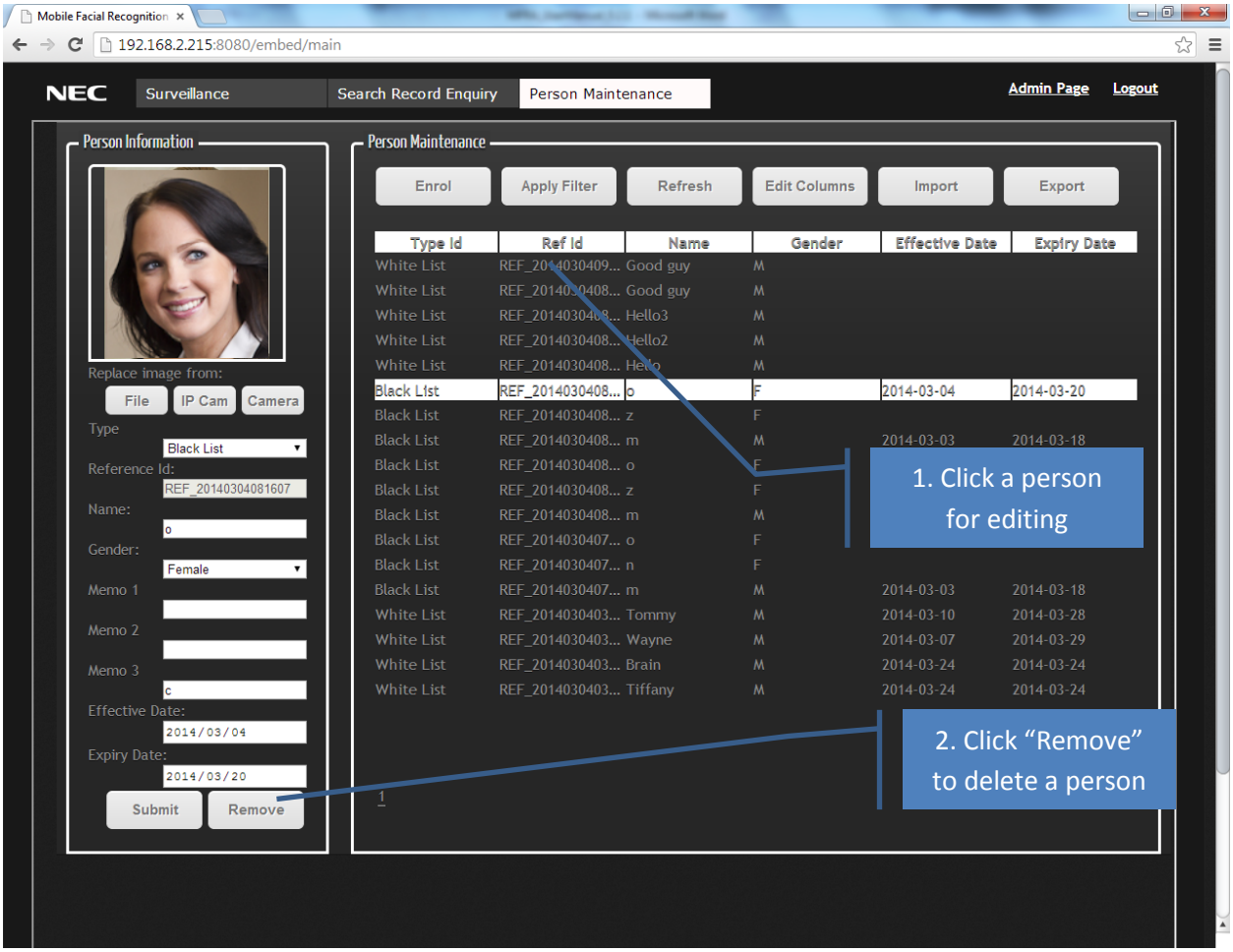


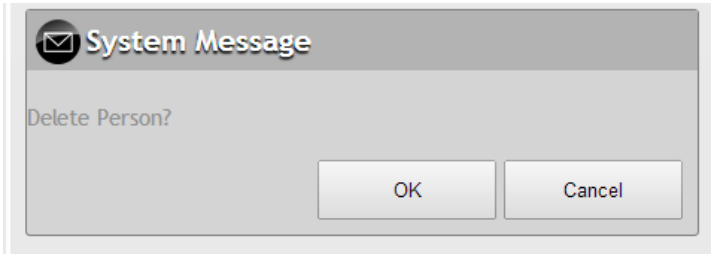
User can update the photo by the image selection buttons at Person details

3.5.4.5 Delete Person

To delete person

1. Select a person at the “Person Maintance” Panel, the person information detail will be displayed
2. Click “Remove” button at the bottom of the “Person Information” panel





Delete person confirmation dialog

3.5.4.6 Export & Import

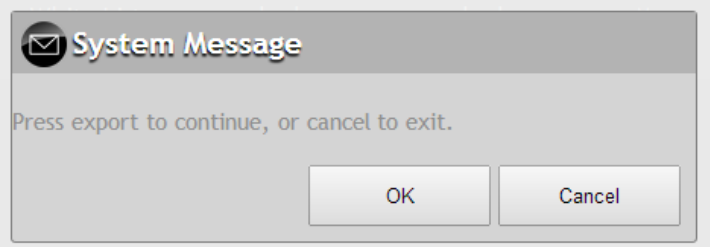
Enrolled person list can be exported to a XML file and import to the system, which can be useful for data backup, co-operation with multiple appliances or integrated with external system. For the xml schema, please refer to Appendix A: XML Schema for Data Export & Import.

Both Export & Import functions are only available for user with admin user type.

To Export Enrollment Database

1. Click “Export” button at the “Person Maintenance” panel.
2. The confirmation dialog will be prompted, click “OK” to continue the export.

The process may take a long time. It is recommended disabling all facial functions before start this action.



The xml file will be named in following format: <<hostname>>_<<export timestamp>>, and the timestamp will be in string format: “yyyy_MM_dd_hh_mm_ss”.

To Import Enrollment Database

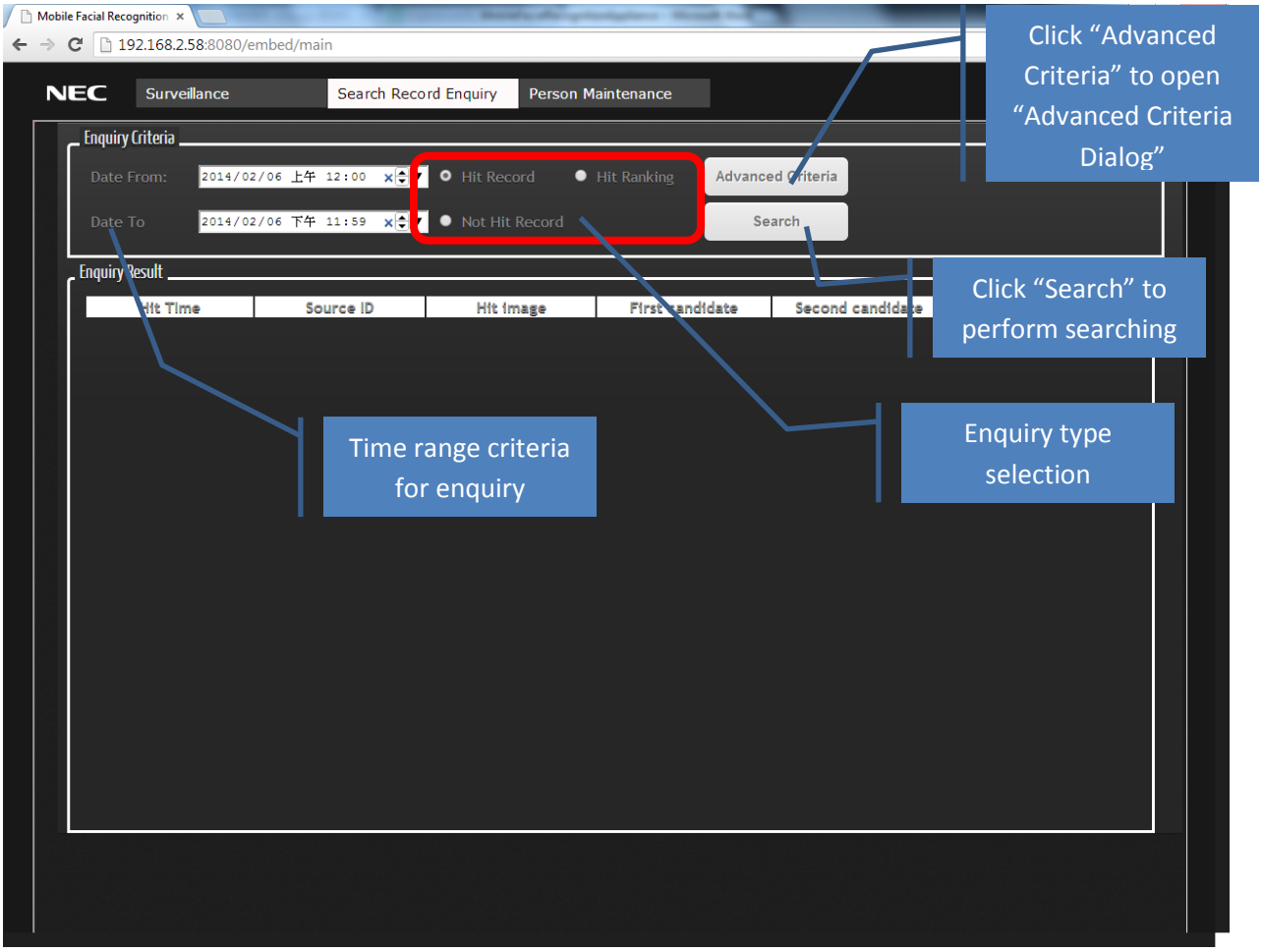
1. Click “Import” button at the “Person Maintenance” panel
2. The file selection dialog will be prompted. After selecting the xml file, click “OK” to continue.
3. After “Import”, reboot is needed to refresh the database.

The process may take a long time. It is recommended disabling all facial functions before start this action.

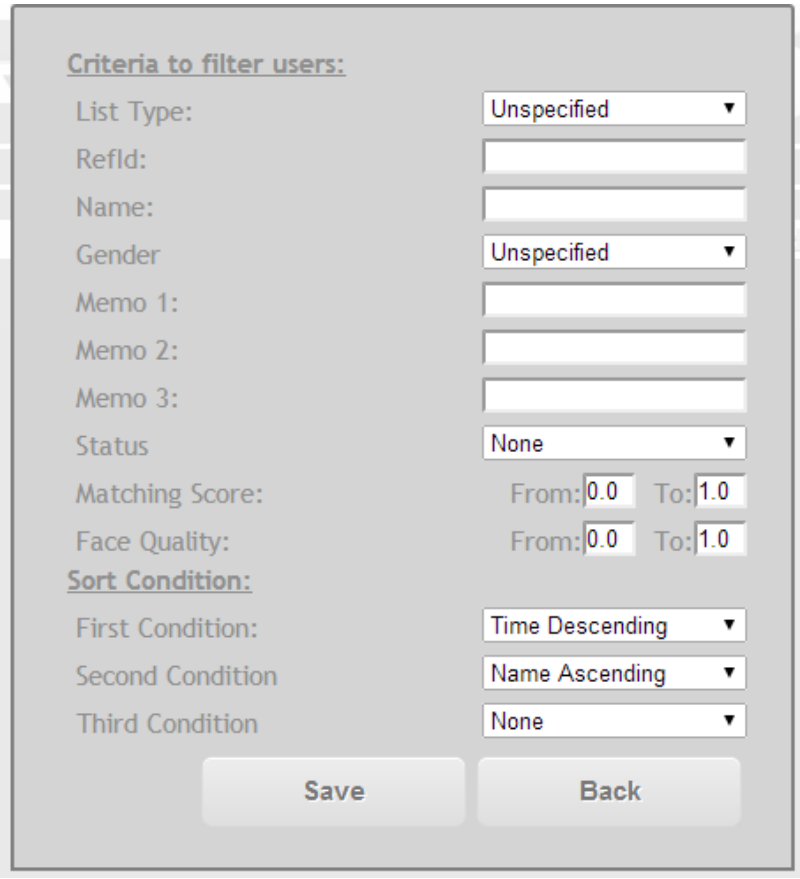
3.5.5 Search Record Enquiry

The facial search record can be enquiry through “Search Record Enquiry” page. There are three enquiry types:

- Hit Record: The record store the facial image from camera which is matched against the enrolled person database
- Not Hit Record: The record store the facial image from camera which does not match against the enrolled person database
- Hit Ranking: The ranking statistics for Hit Record which summarize the number of hit records of enrolled person in database.



Search Record Enquiry can be perform through “Search Record Enquiry” page

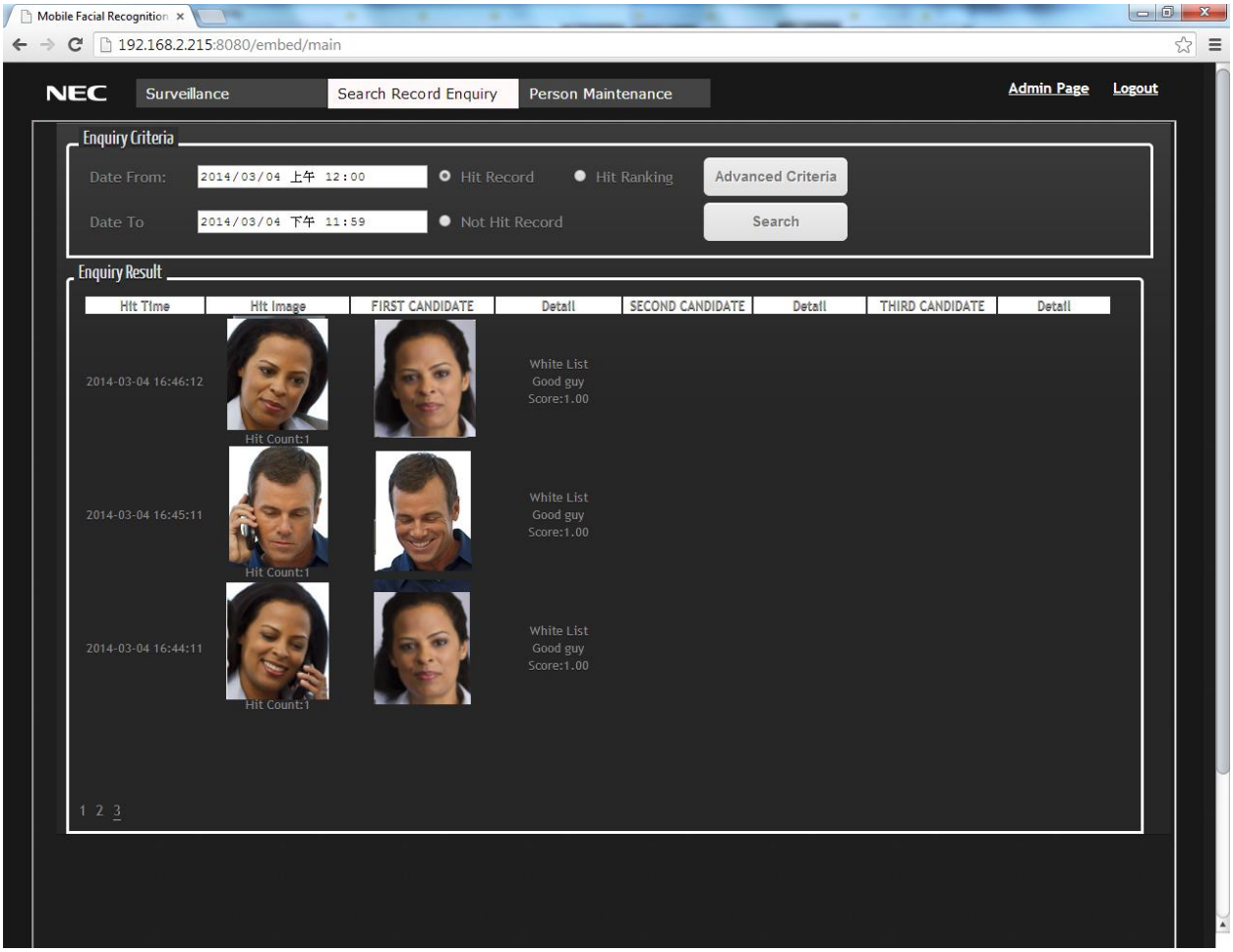


Advanced Search Criteria Dialog

Advanced Search Criteria		Remarks
List Type	Person list type filter • White List or • Black List	Not available to "Not Hit Record"
Reference ID	The text filter of reference ID If it is applied, only the person with "reference ID" containing the exactly matched string will be shown at person maintenance list.	Not available to "Not Hit Record"
Name	The text filter of name If it is applied, only the person with "name" containing the exactly matched string will be shown at person maintenance list.	Not available to "Not Hit Record"
Gender	Gender filter • Male • Female	Not available to "Not Hit Record"
Memo 1	The text filter of memo 1 If it is applied, only the person with "memo 1" containing the exactly matched string will be shown at person maintenance list.	Not available to "Not Hit Record"
Memo 2	The text filter of memo 2	Not available to "Not Hit Record"

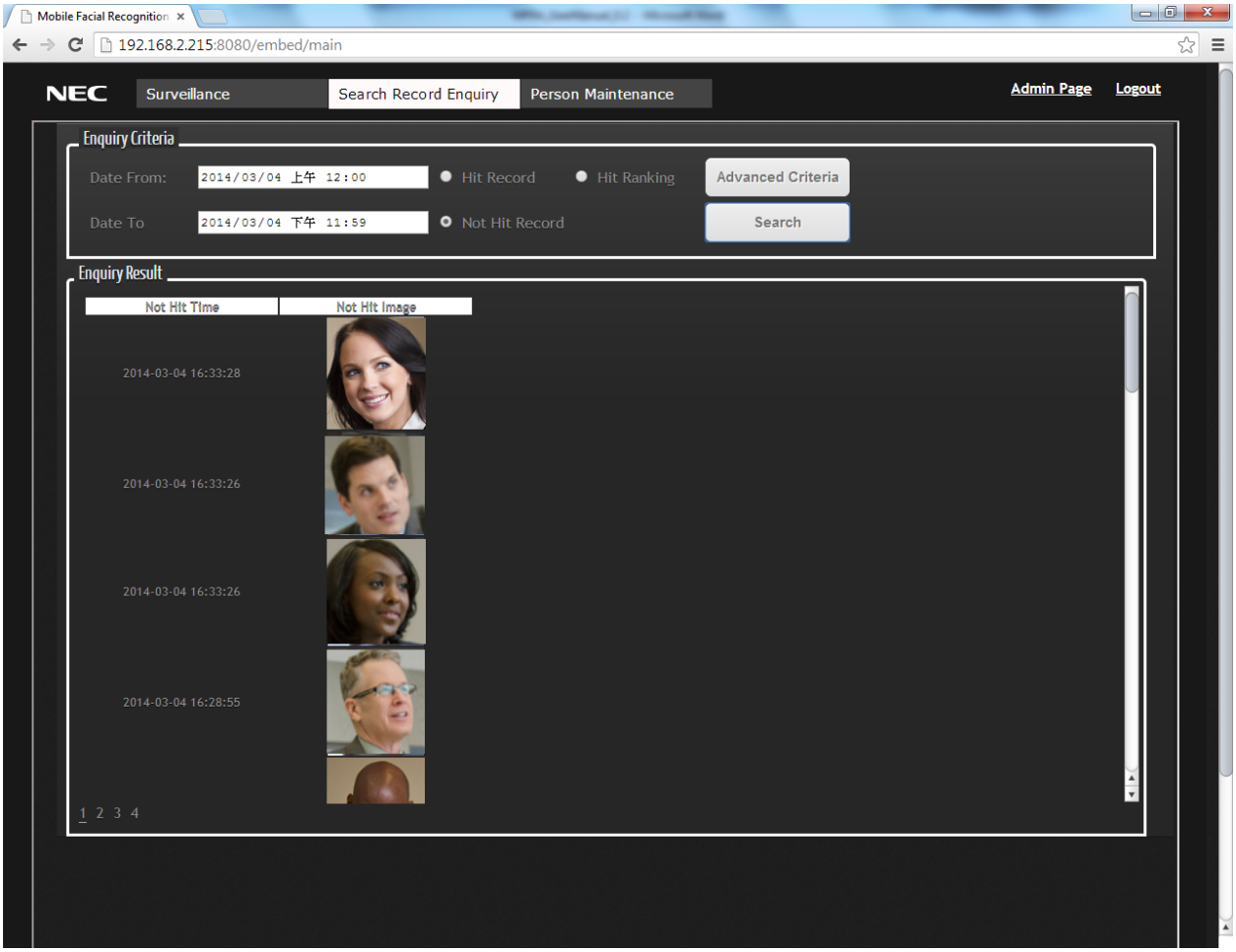
	If it is applied, only the person with “memo 2” containing the exactly matched string will be shown at person maintenance list.	
Memo 3	The text filter of memo 3 If it is applied, only the person with “memo 3” containing the exactly matched string will be shown at person maintenance list.	Not available to “Not Hit Record”
Status	Effective/ Expiry Status filter • Active • Expired • Pending	Not available to “Not Hit Record”
Matching Score	The range of matching score of the matched photo(s)	Not available to “Not Hit Record”
Face Quality	The range of face quality of query face image from camera	
Sort Condition		
First Condition	The first sorting condition, the search result can be sorted by Time, Ref ID, Name, Gender, List Type, Memo 1, Memo 2 or Memo 3 in either ascending or descending order	For “Not Hit Record”, the search result can be sorted by Time in either ascending or descending order.
Second Condition	The second sorting condition, the search result can be sorted by Time, Ref ID, Name, Gender, List Type, Memo 1, Memo 2 or Memo 3 in either ascending or descending order	Not available to “Not Hit Record”
Third Condition	The third sorting condition, the search result can be sorted by Time, Ref ID, Name, Gender, List Type, Memo 1, Memo 2 or Memo 3 in either ascending or descending order	Not available to “Not Hit Record”

3.5.5.1 Hit Record Enquiry

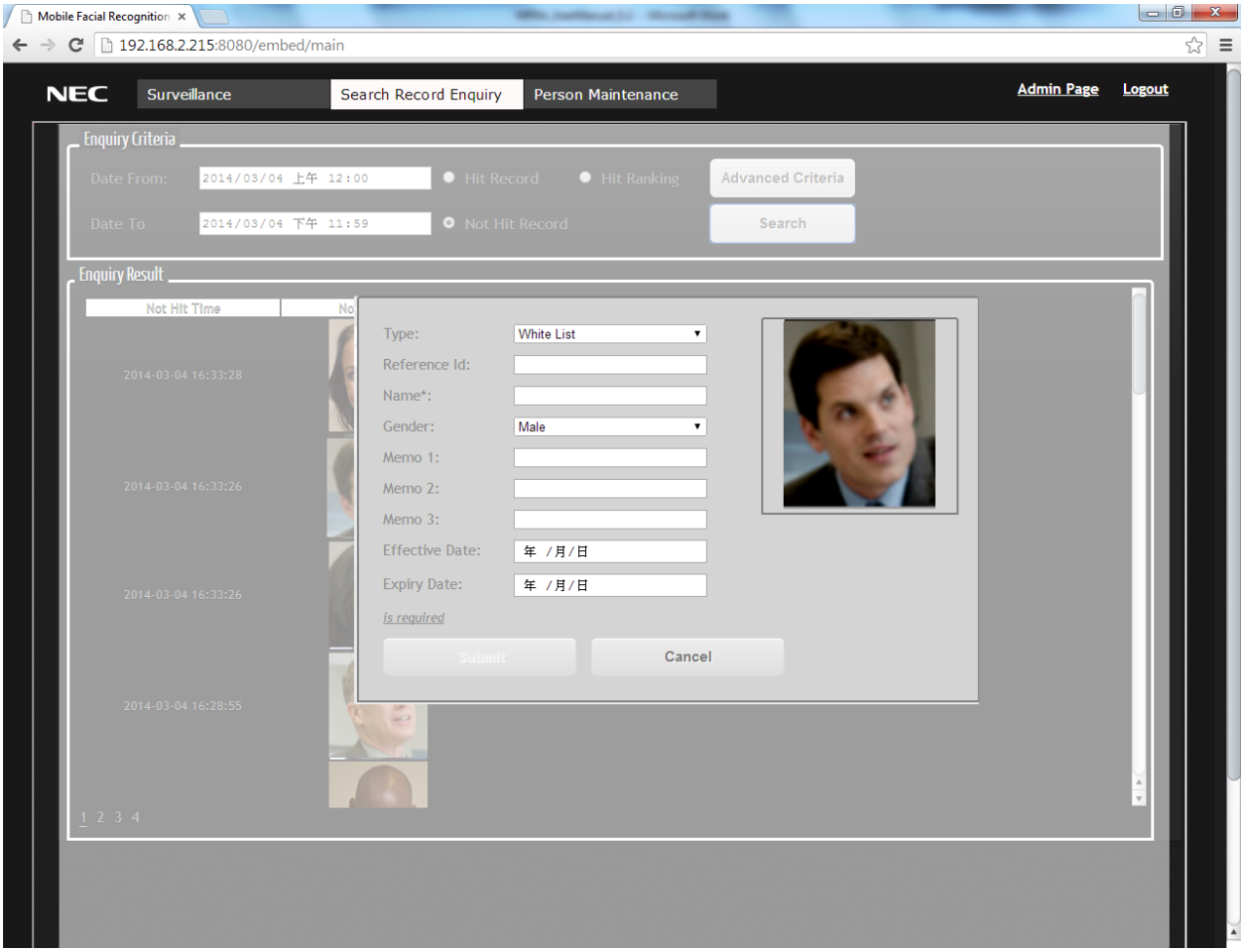


Sample "Hit Record" enquiry result

3.5.5.2 Not Hit Record Enquiry

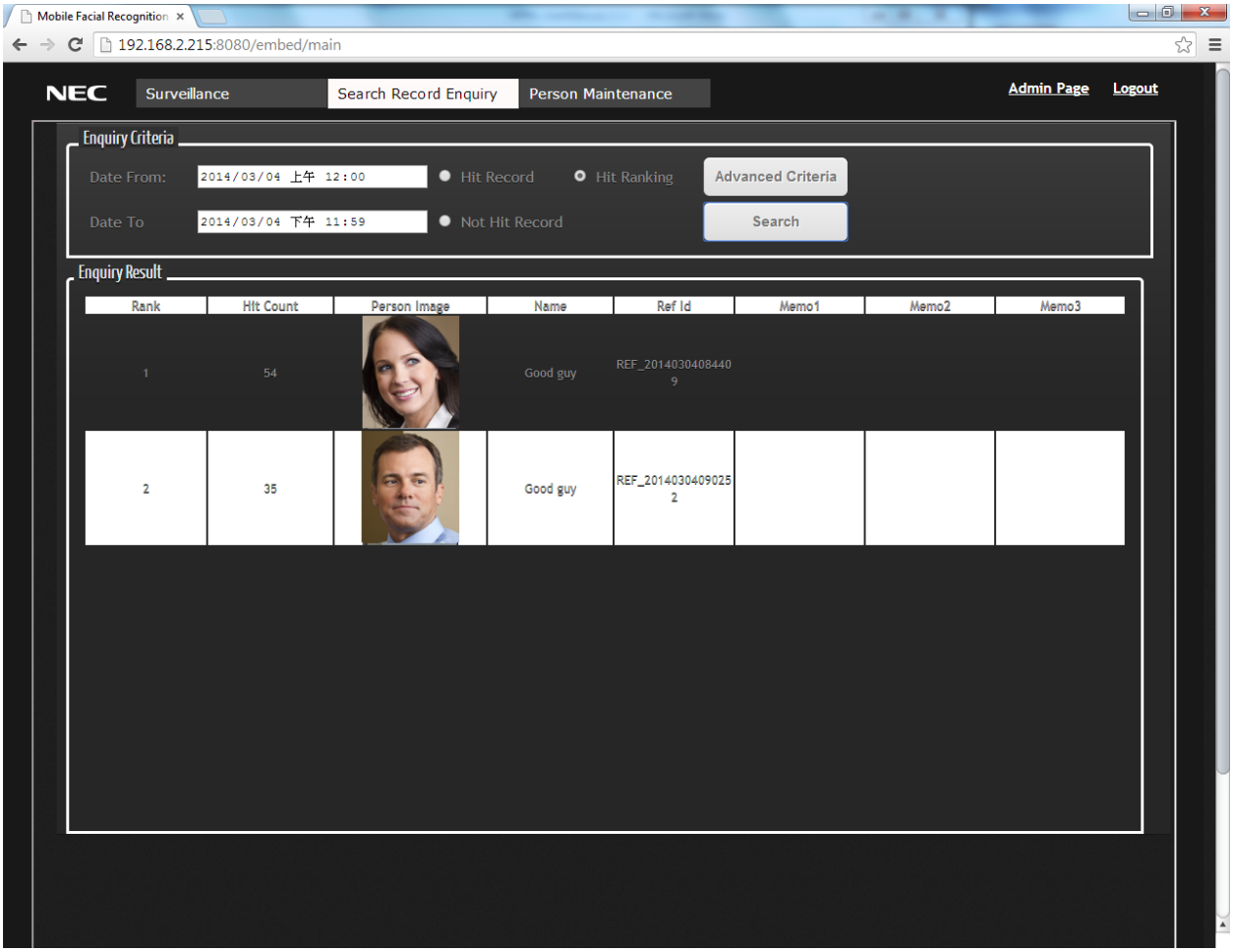


Sample "Not Hit Record" enquiry result



Person can be added via Not Hit Record

3.5.5.3 Hit Ranking Enquiry



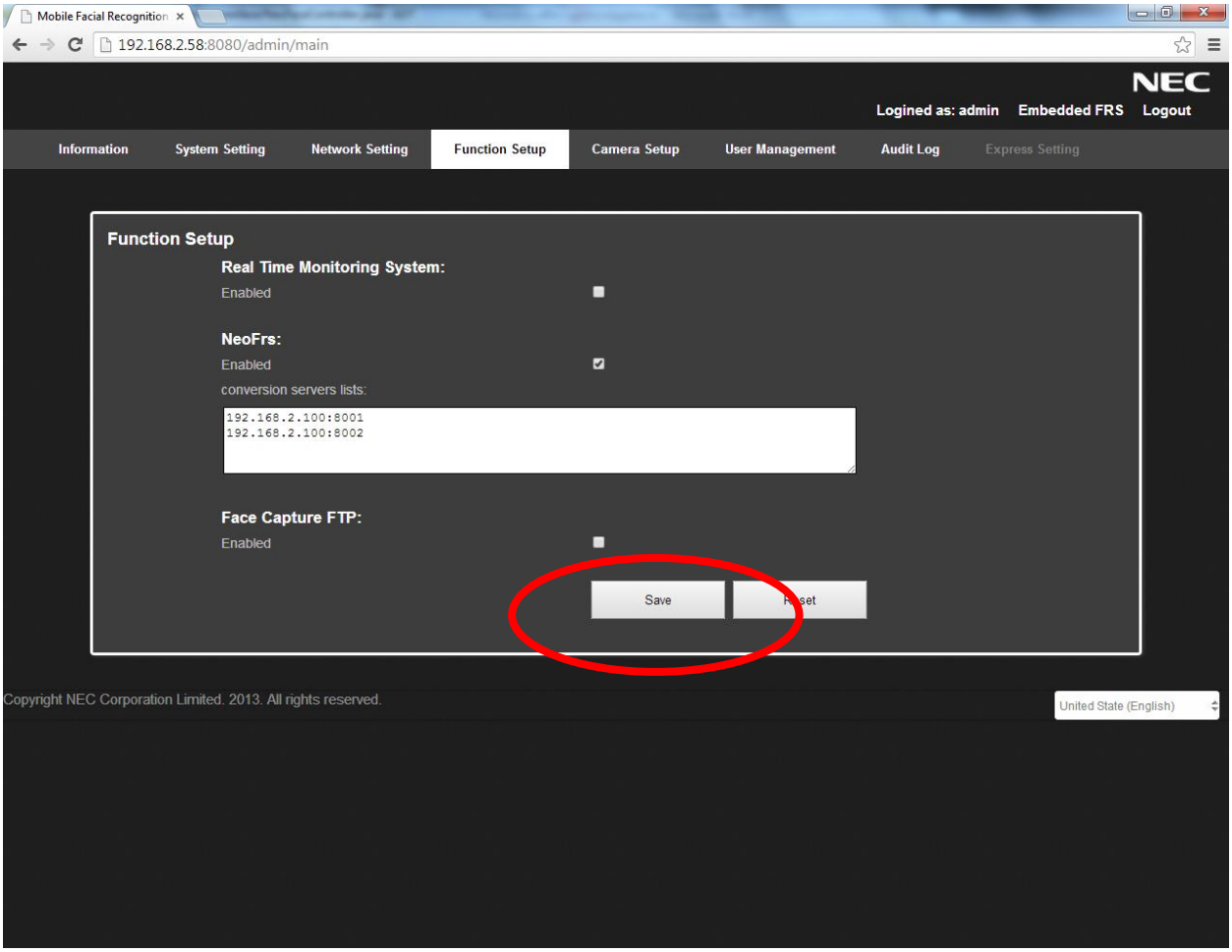
Sample "Hit Ranking" enquiry result

3.6 Function NeoFrs

The system can provide face image feed for NeoFrs. To enable this function, please check the “Enabled” checkbox at “NeoFrs” under “Function Setup” page. For detail regarding NeoFRS, please refers to the NeoFRS User Manual.

Parameters	Description
Feature conversion servers lists	The list of NeoFrs feature conversion address list, in format <<IP Address>>:<<Port>> If multiple feature conversion servers are used, input one server address per each line.

To make the settings effective, please click “Save” button at the bottom of the page.



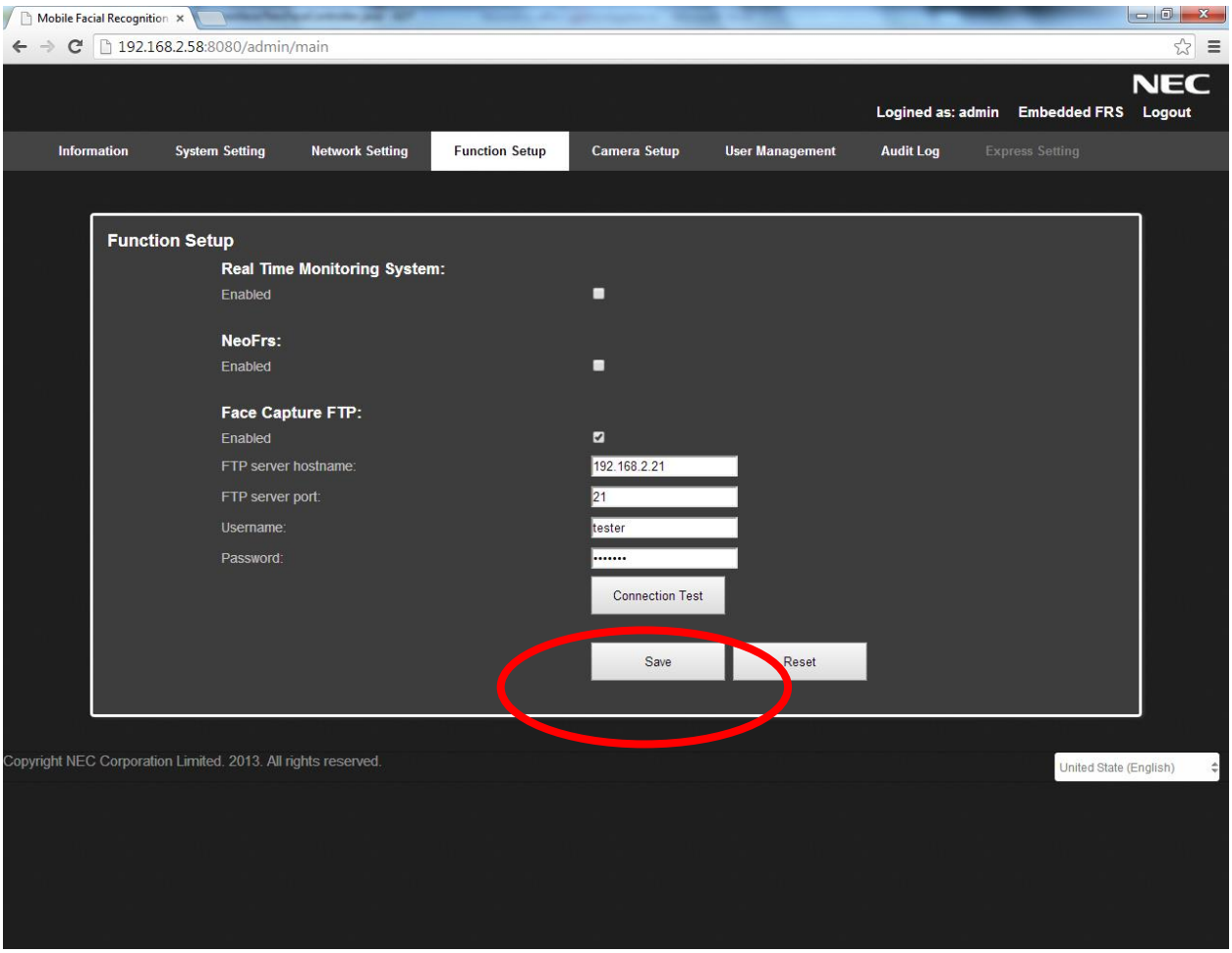
3.7 Face Capture FTP

The system can provide face image feed for other external system via FTP. To enable this function, please check the “Enabled” checkbox at “Face Capture FTP” under “Admin->Function Setup” menu.

Parameters	Description
FTP server hostname	The IP address of the ftp server
FTP server port	The port of the ftp server
Username	Username of ftp account
Password	Password of ftp account

The settings can be test by clicking “Connection Test” button.

To make the settings effective, please click “Save” button at the bottom of the page.

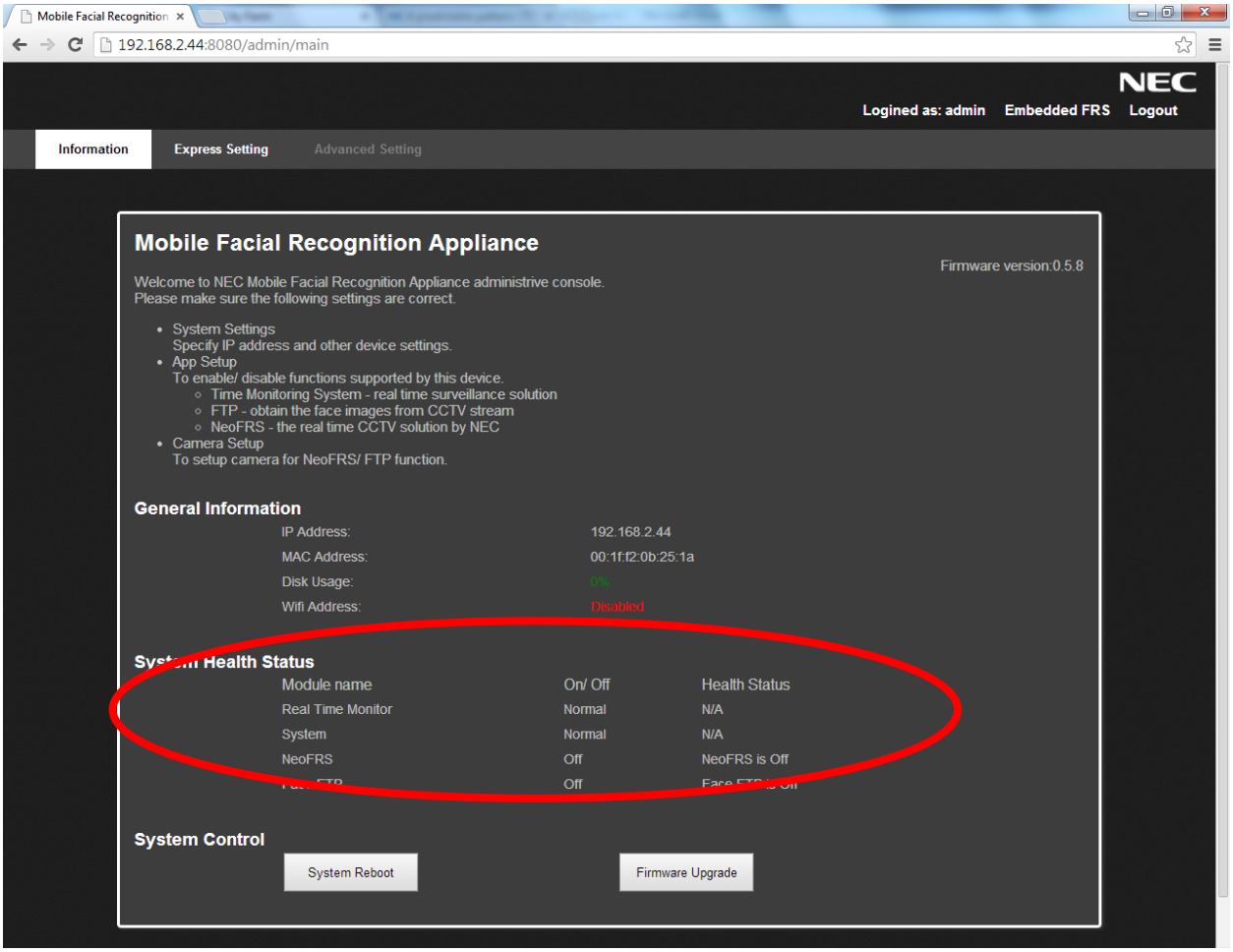


3.8 Appliance Health Status

3.8.1 General

The appliance health status can be shown at the Admin -> Information page. There are four main type of event:

- System
- Real Time Monitor
- Face FTP
- NeoFRS



System Health Status section can be found at information page

3.8.2 Health Status Event Summary

Here is the summary of appliance status event with alert action. Action include:

- Trigger Email (*): Email alert if the event is triggered
- Resume Email (*): Email if the event is resumed from triggered
- Status LED: The signal pattern from status LED at the appliance front panel

Event	Trigger Email	Resume Email	Status LED L: On for 2000 ms and Off for 200 ms S: On for 200 ms and Off for 200 ms
System			
Camera is not set	False	False	L S S
Capture fail	True	True	L S S
NeoFaceError	True	False	L S
System Reboot	True	False	N/A
Firmware Upgrade	True	False	N/A
Real Time Monitor			
Real Time Monitor is Off	True	True	N/A
Image Frame Droppeed	False	False	N/A
Disk usage reach the defined limitation	True	False	L S S S S S
Disk usage Full	True	False	L S S S S S
Face FTP			
Face FTP is Off	True	True	N/A
Face FTP queue size is large	False	False	N/A
Error occur during FTP	True	True	L S S S S
NeoFRS			
NeoFRS is Off	True	True	N/A
NeoFRS queue size is large	True	True	N/A
Some of the NeoFRS Servers cannot be reached	True	True	L S S S
All NeoFRS servers were not be reached	True	True	L S S S

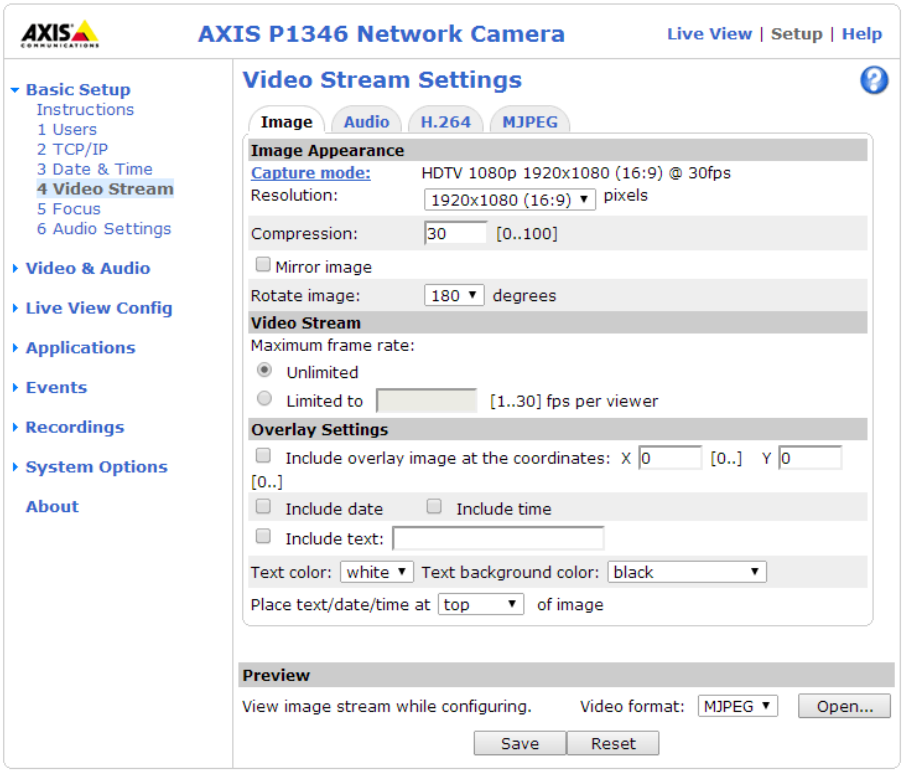
(*) E-mail addresses defined in system alert list from System Settings “E-mail Notifications” will receive the email according to the summary.

Appendix A - AXIS Camera Setup P1346

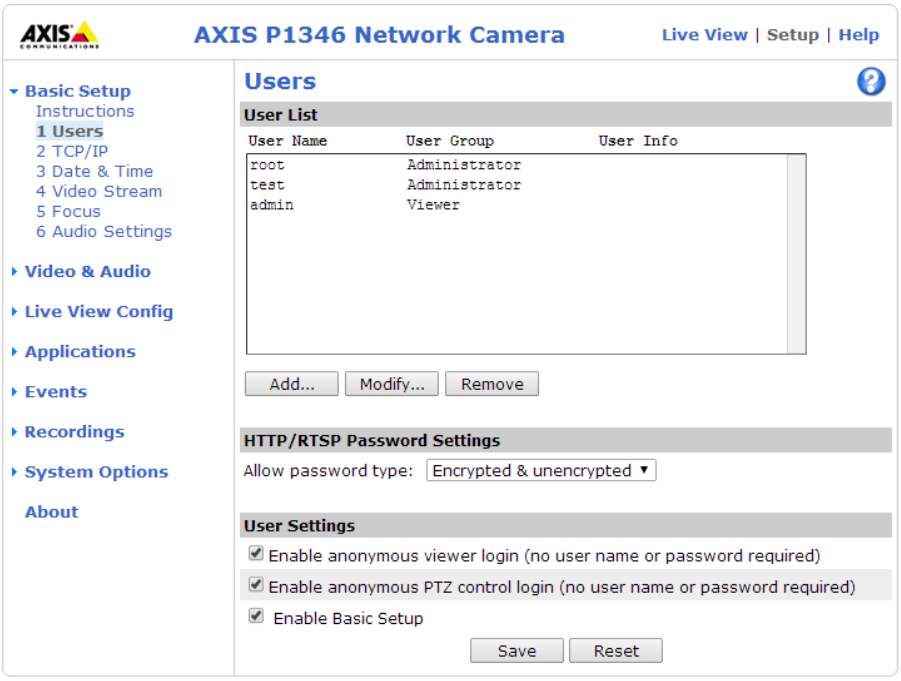
In this section, it shows the recommanded setting for AXIS Camera P1346.

For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

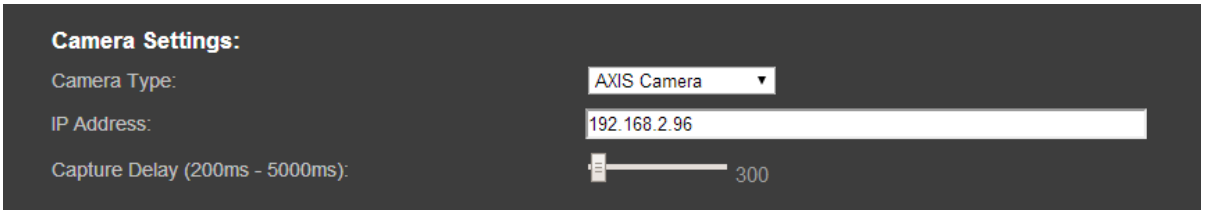
1. Set the resolution of the capture mode to “1920x1080 (16:9)”



2. Enable anonymous viewer login



3. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”AXIS Camera” with the camera IP address to “IP Address” textbox.

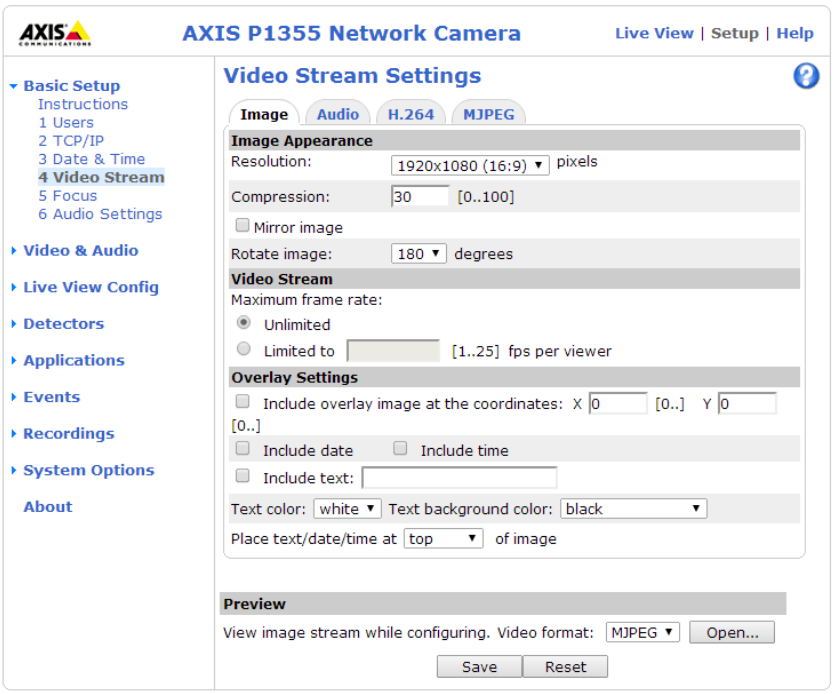


Appendix B - AXIS Camera Setup P1355

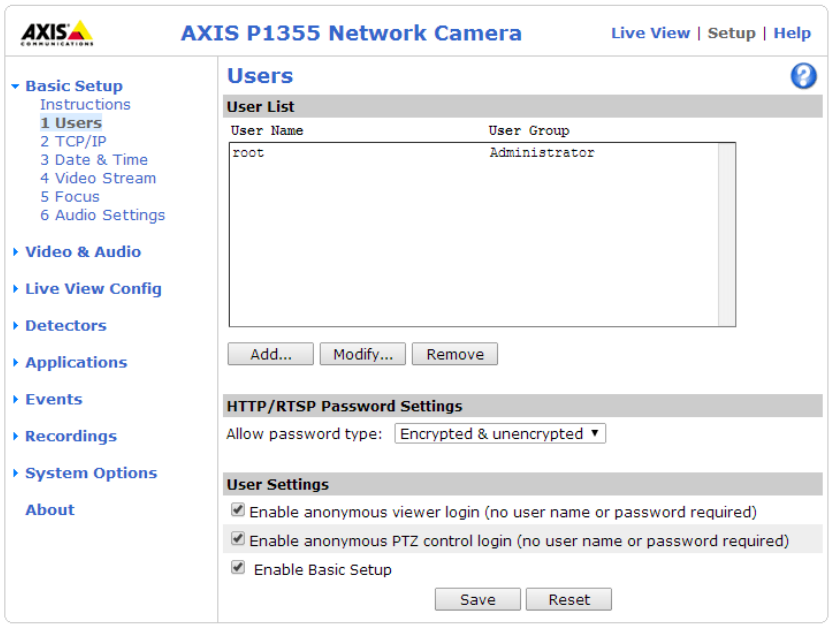
In this section, it shows the recommanded setting for AXIS Camera P1355.

For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

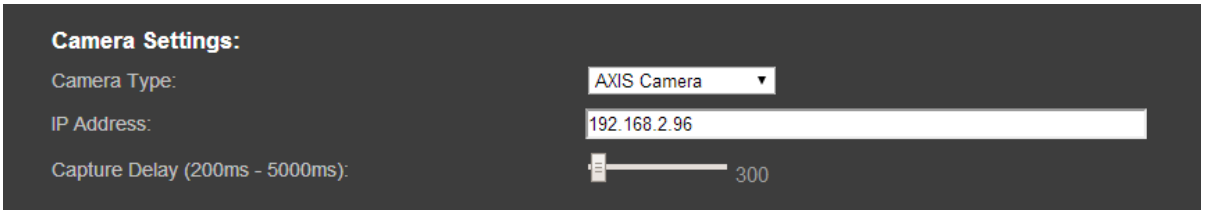
1. Set the resolution of the capture mode to “1920x1080 (16:9)”



2. Enable anonymous viewer login



3. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”AXIS Camera” with the camera IP address to “IP Address” textbox.



Appendix C – Panasonic Camera Setup WV-SP508E

In this section, it shows the recommanded setting for Panasonic Camera WV-SP508E

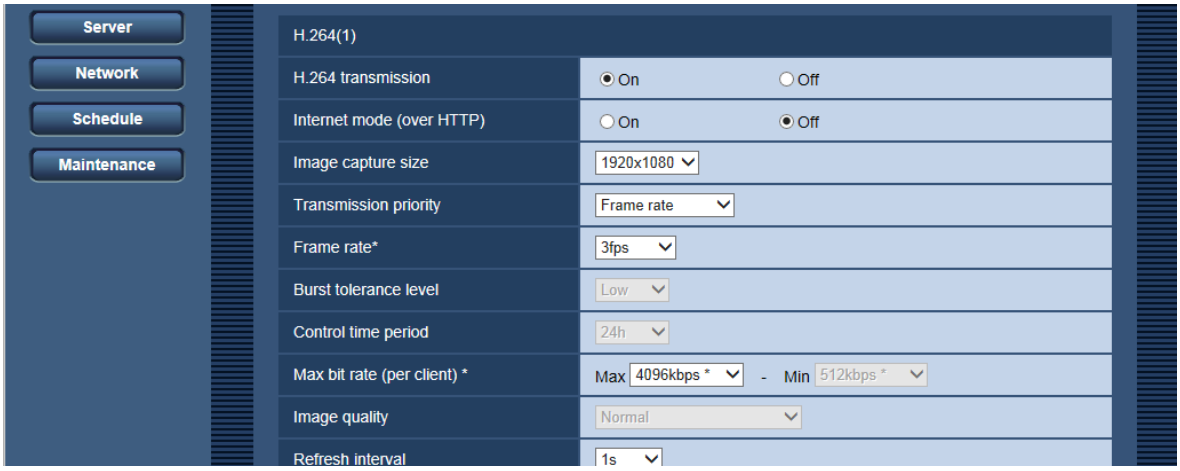
For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

1. Update the Image “JPEG” section, which is used for appliance live preview in surveillance page

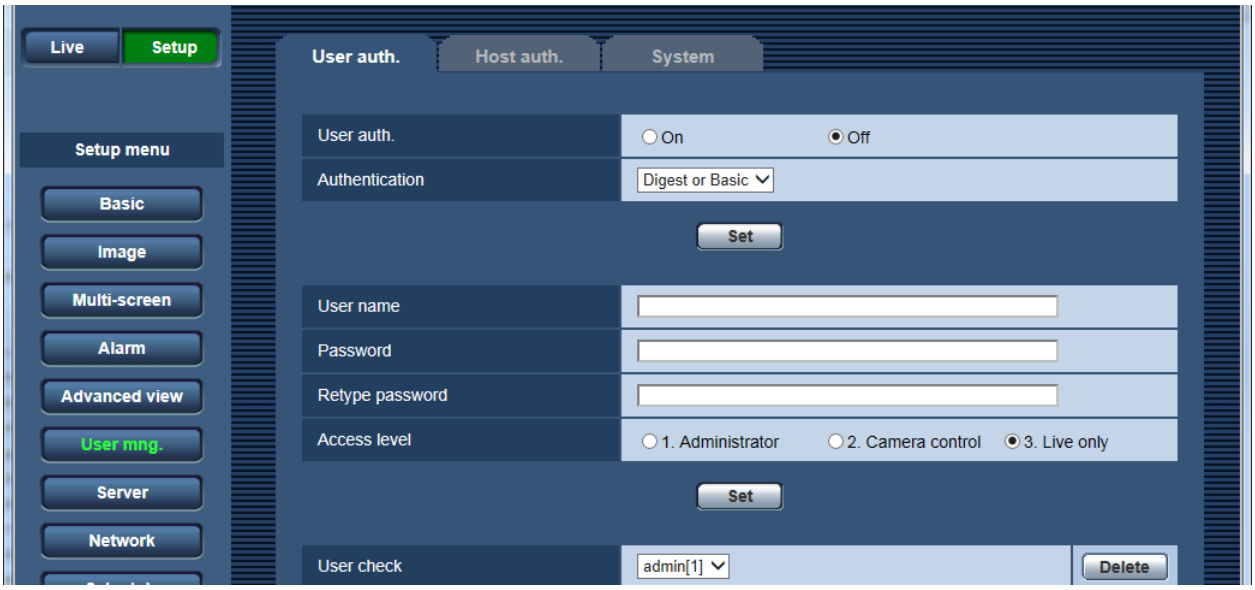
Parameter	Value
Image capture size	640x360

2. Update the Image “H.264(1)” section, which is used for real time monitoring streaming.

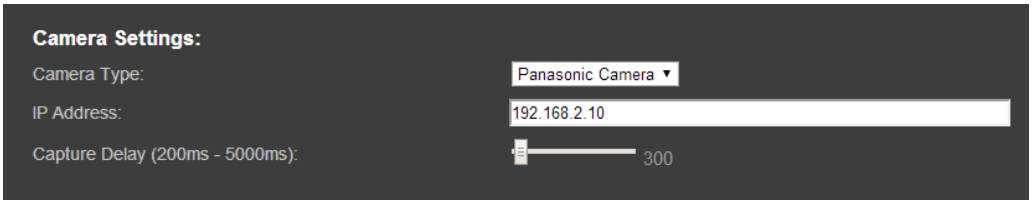
Parameter	Value
H.264 Transmission	On
Refresh interval (JPEG)	3 fps
Image capture size	1920x1080



3. Turn off the User auth. From User mng. section



4. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”Panasonic Camera” with the camera IP address to “IP Address” textbox.



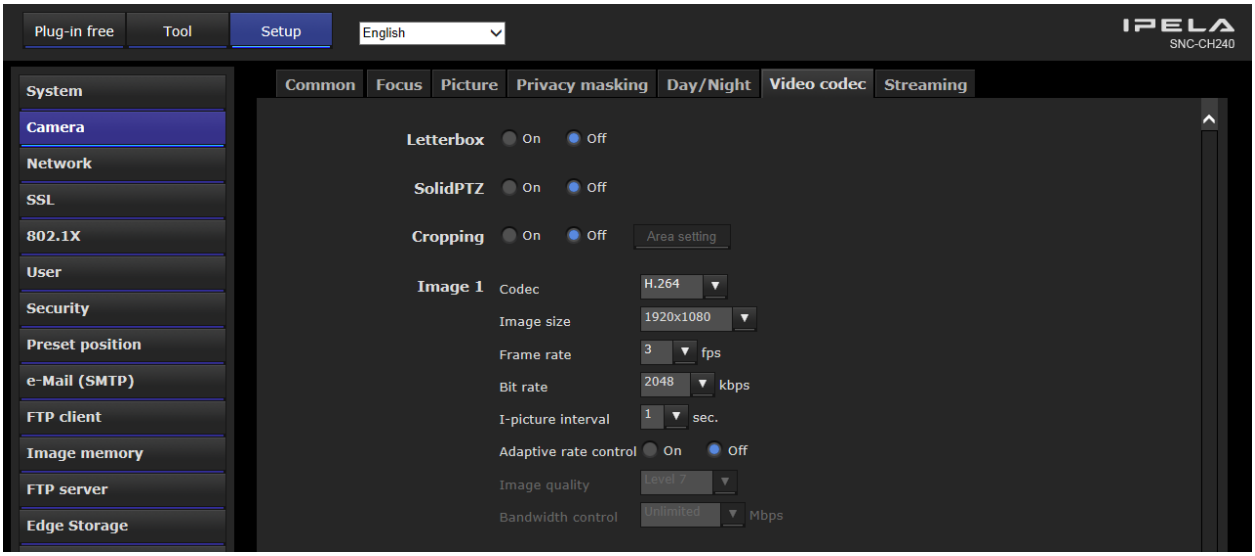
Appendix D – Sony Camera Setup SNC-CH240

In this section, it shows the recommanded setting for Sony Camera SNC-CH240

For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

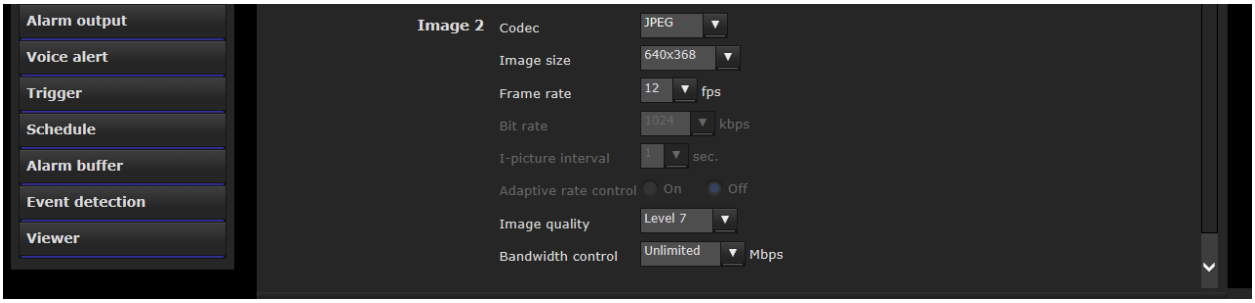
1. Update the Image “Image 1” section, which is used for video stream of real time monitoring system.

Parameter	Value
Codec	H.264
Image size	1920x1080
Frame rate	3 fps

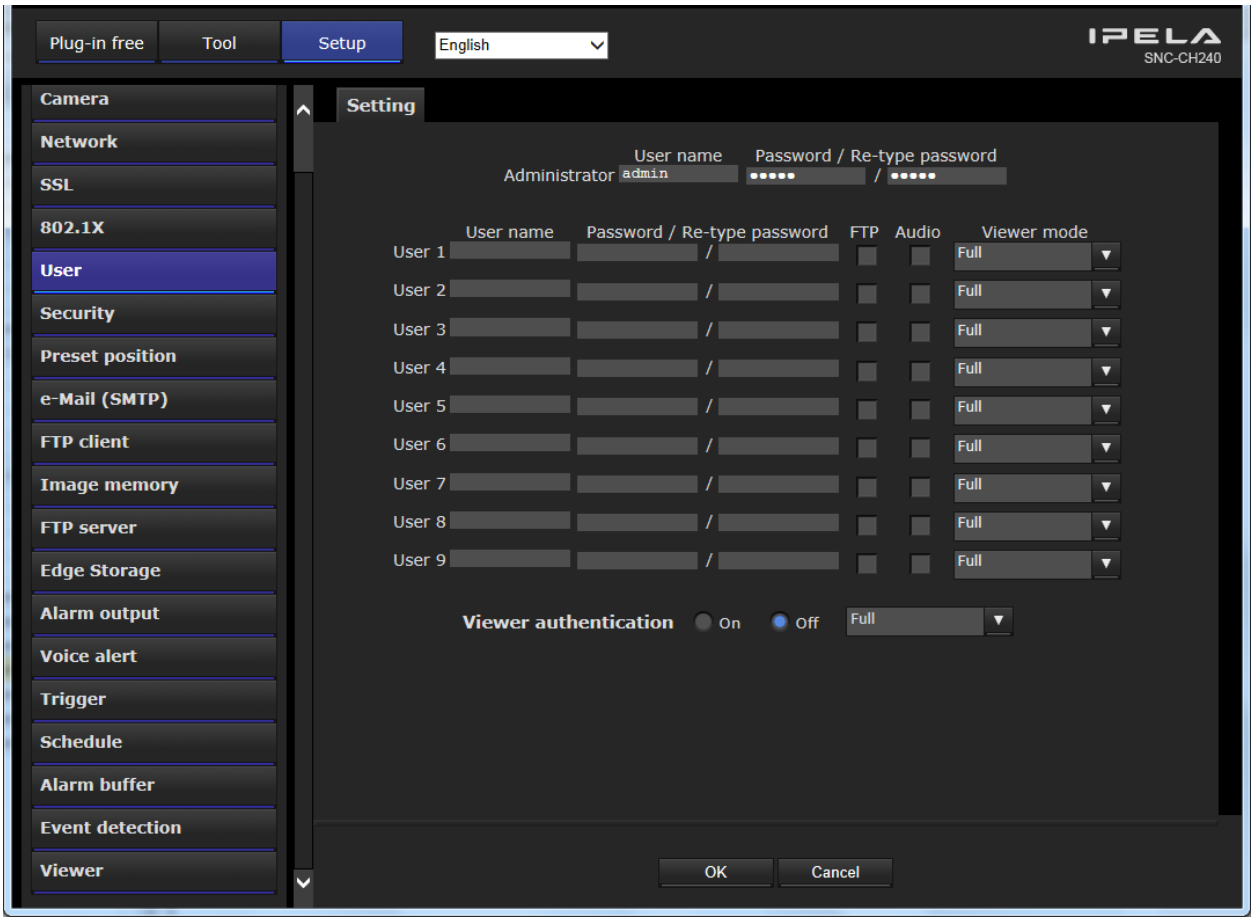


2. Update the Image “Image 2” section, which is used for appliance live preview in surveillance page

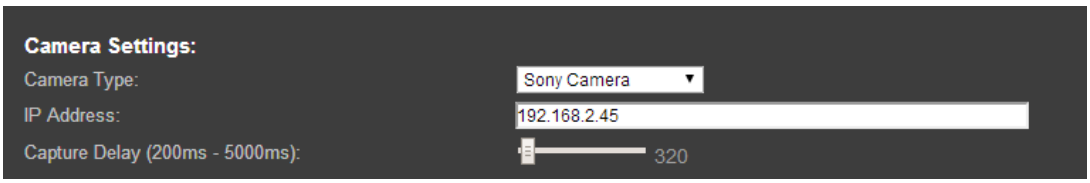
Parameter	Value
Codec	JPEG
Image size	640x368



3. Set the Viewer authentication to “Off”



4. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”Panasonic Camera” with the camera IP address to “IP Address” textbox.



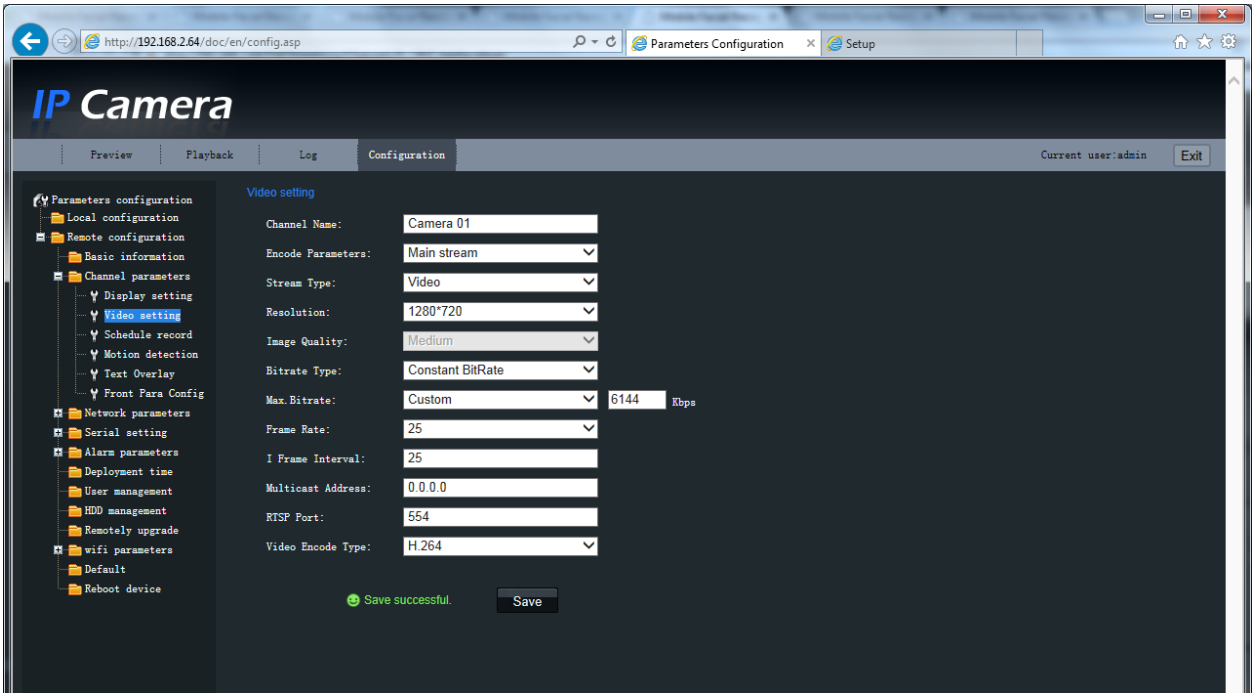
Appendix E – Hikvision Camera Setup DS-2CD854-EW

In this section, it shows the recommanded setting for Hikvision Camera DS-2CD854-EW

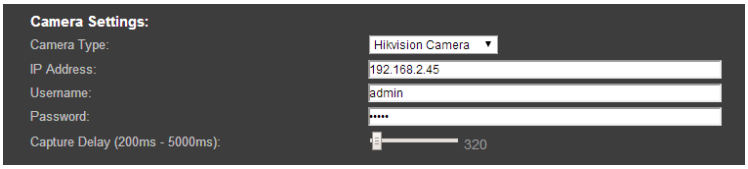
For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

1. Update the video setting, which is used for video stream of real time monitoring system.

Parameter	Value
Image size	1280*720
Video Encode Type	H.264



2. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”Hikvision Camera” with the camera IP address to “IP Address” textbox. Please input the username with password for accessing the camera as well.



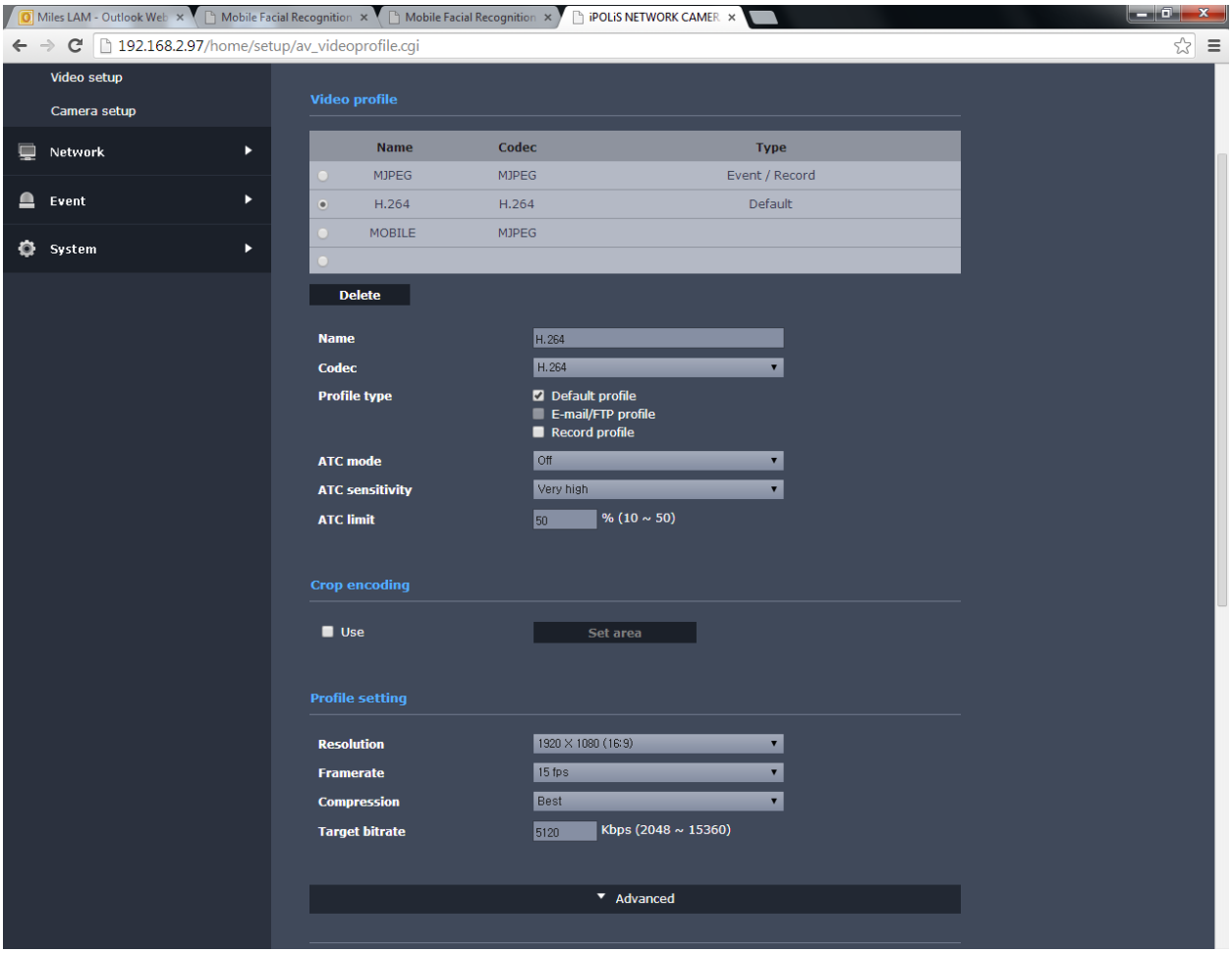
Appendix F – Samsung Camera Setup SNO-6011R

In this section, it shows the recommanded setting for Samsung Camera SNO-6011R

For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

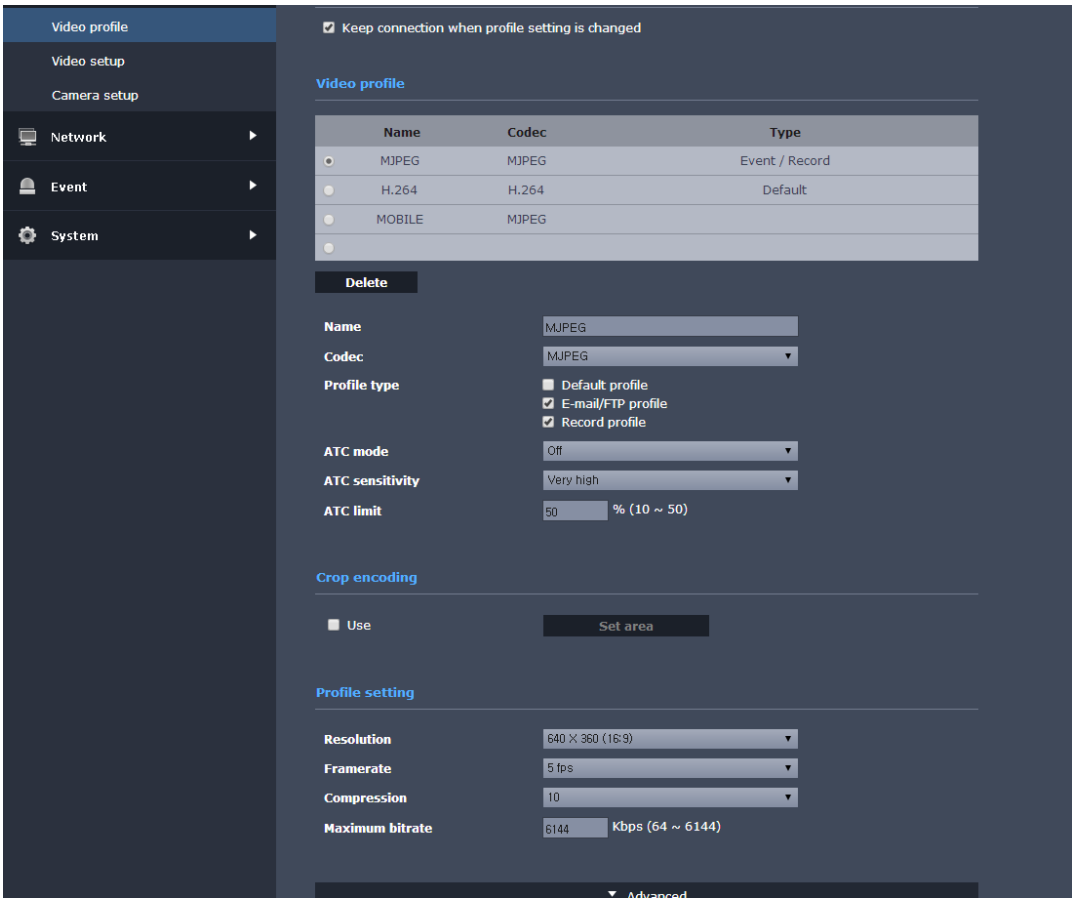
1. Update the video profile “H.264”, which is used for video stream of real time monitoring system.

Parameter	Value
Resolution	1920x768 (16:9)

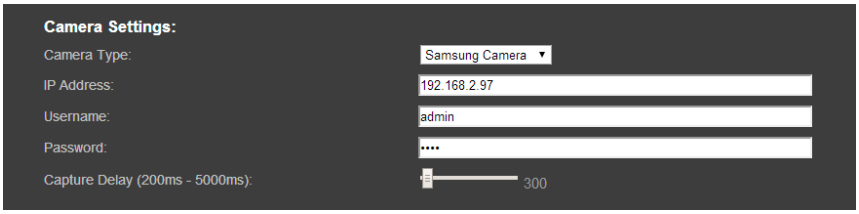


2. Update the video profile “MJPEG”, which is used for live preview in surveillance page

Parameter	Value
Resolution	640x360 (16:9)



3. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”Samsung Camera” with the camera IP address to “IP Address” textbox. Please input the username with password for accessing the camera as well.

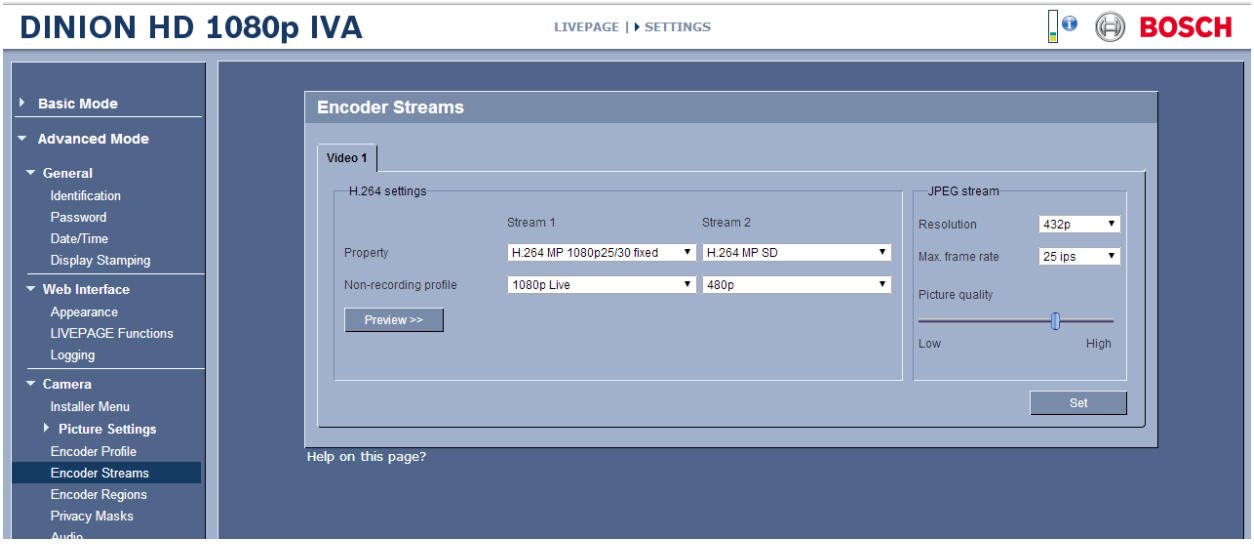


Appendix G – Bosch Camera Setup NBN-832V-IP

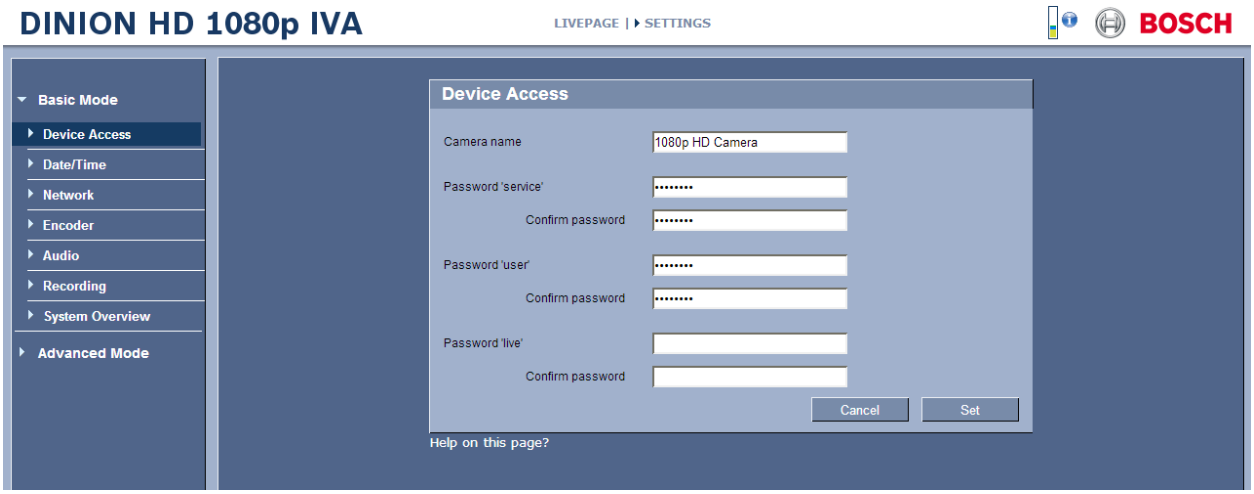
In this section, it shows the recommanded setting for Bosch Camera NBN-832V-IP

For the detail for setup procedure of the camera, please refers to the user manual provided by the IP camera manufactory.

1. Update the “Encoder Streams” and set the following:
   - H.264 settings Stream1 to “1080p Live” for real time monitoring system.
   - JPEG streams Resolution to “432p” for live preview

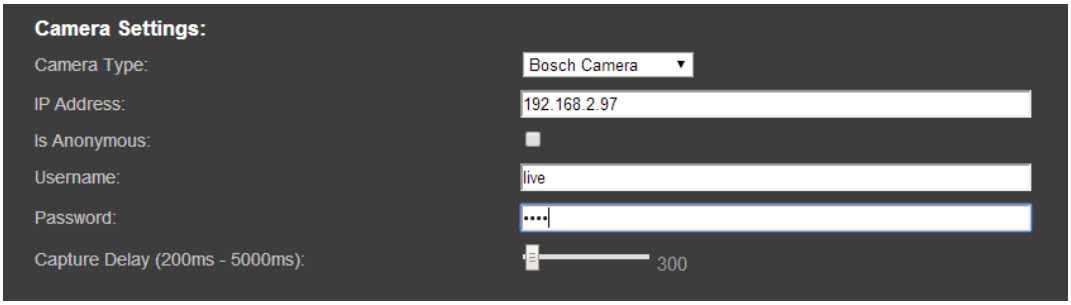


2. Update the “Device Access” and set the following:
   - Set the Password ‘live’, or
   - Leave the Password ‘live’ as blank if “Is Anonymous” option is used (Please refer to step 3)



3. After setup the IP Camera, go to the admin page of the Appliance and update the camera type to ”Bosch Camera” with the camera IP address to “IP Address” textbox.

If Password ‘live’ is set at step 2, please uncheck the “Is Anonymous” and enter the username and password correspondingly.



If Password ‘live’ is NOT set at step 2, please check the “Is Anonymous”